DOCUMENT RESUME

ED 128 070 PS 008 729

AUTHOR Hamilton, David
TITLE A Case Study of a New Scottish Open Plan School.
INSTITUTION Scottish Council for Research in Education.
PUB DATE 16 Feb 76
NOTE 204p.

EDRS PRICE MF-$0.83 HC-$11.37 Plus Postage.
DESCRIPTORS *Case Studies; Curriculum Development; *Early Childhood Education; Educational Change; Educational Experience; Educational History; Educational Theories; Elementary School Students; Instructional Materials; Interviews; Methods; *Open Education; *Open Plan Schools; Play; *Primary Education; Program Development; Program Proposals; School Design; *Teaching Techniques
IDENTIFIERS *Scotland

ABSTRACT

This report, representing a 12-month case study of a new Scottish primary school, draws together educational issues concerning problems and possibilities of open-plan schooling by locating them in the day-to-day work of a particular open-plan school. During 70 days of field work, the researcher spent time observing classes, interviewing parents, children and teachers, and collecting comments on preliminary drafts of the final report. The first part of the report contains an introduction and seven essays: Becoming an Open Plan School; Open Plan Schools Past and Present; First Days at School (the experiences of one class and their teacher); The Case of the Missing Chairs (the relationship between teaching techniques and material resources); All Work and No Play? (the changing character of the primary school curriculum); Episodes of School Life (a day in the life of a pupil, teacher and class); The Logic of the Open Plan School (a theoretical integration of the architectual and educational use of the term 'open plan'). Research documents and methodological appendices comprise the second part of the report. (Author/MS)

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A CASE STUDY OF A NEW SCOTTISH OPEN PLAN SCHOOL

by

David Hamilton

With illustrations by

Marjorie Campbell

1976

The Scottish Council for Research in Education

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The Scottish Council for Research in Education,

15 Moray Place,

EDINBURGH

EH3 6DR

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'Space is not merely a background for events
but possesses an autonomous structure'

(Albert Einstein, *Physicist*)

PREFACE

In 1974 the Scottish Council for Research in Education published *Space for Learning*, a thirty-page illustrated account of recent developments in open-plan schooling in Scotland. The six-month investigation reported in *Space for Learning* was a relatively new venture for the SCRE. It did not set out to test a range of pre-specified hypotheses or even to survey every aspect of open-plan schooling. Instead, it tried to respond in an accessible manner to some of the questions posed at that time by teachers and administrators. As a piece of research, *Space for Learning* was committed to servicing a debate, not resolving it. In the event, its impact exceeded the Council's expectations. Within eighteen months the report had sold over 2,000 copies (with two reprints) and, in the process, had become recommended reading for students in Colleges of Education.

In Search of Structure utilises a similar research perspective. It draws together a range of current educational issues by locating them in the day to day work of one open-plan school. As with *Space for Learning* its principle concern is to contribute - in a sensitising manner - to wider discussions about the problems and possibilities of open-plan schooling.

The first part - directed towards an audience of teachers, parents, students, administrators and architects - comprises an introductory chapter followed by seven separate essays. The second part - directed primarily towards the research community - outlines the study's rationale and methods.

Acknowledgements

Although the overall responsibility for this report necessarily rests with the author, its preparation would have been impossible without the unselfish cooperation and assistance of the following teachers, research colleagues and others:

C Adelman, A Ball, N Bennett, C Boag, D Boydell, R Boyes, J Brunton, C Clarke, P Clift, E Coghill, M Cookson, M Corrie, B Cuthbertson, C Darroch, J Dickie, M Dilbey, B Dockrell, D Elliot, J Elliot, R Graham, H Forrester, I Fraser, M Fraser, A Hamilton, M Hamilton, J Henderson, G Hudson, M Jamieson, S Kemmis, P Kenley, S Kleinberg, G Lawrence, K MacIver, I McRiner, D Medd, J Moore, D Morrow, K Napier, M Reid, K Richmond, W Robertson, B Sanders, M Scrimgeour, E Smail, D Smith, J Smith, L Smith, M Stewart, G Thorpe, E Welsh, B Wise, R Young.

The author would also like to thank the Scottish Council for Research in Education for their sponsorship of this research; the Social Science Research Council for their financial assistance (Grant No HR 3455); and Reiach Hall & Lawrence RIBA for their permission to reproduce architectural drawings.

Finally, this report is dedicated to the many pupils and parents who, often anonymously, contributed their experiences and insights.

February 16th, 1976

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GLOSSARY OF COMMON TERMS

All-through School ..... A school that caters for children of both primary and secondary age. Schools of this kind are more common in rural than urban areas.

Assistant Head Teacher (early education)..... A teacher who is given special administrative responsibility within a school for the education of children below *primary four* level (see below). Formerly known as an Infants' Mistress.

CLASP School ..... Type of school designed by a consortium of local authorities in the east midlands of England. The shell of the case study school (CLASP mark five) was created by bolting prefabricated units to a steel frame. CLASP designs were originally produced for areas troubled by mining subsidence. They require only shallow foundations.

Cross-teaching ..... An attempt to break down the tradition in primary education in Scotland whereby each class has the same teacher for most, if not all, of the school day. Thus in the case study school teachers would deliberately swop classes or take other teachers' classes with their own. Furthermore, they would justify their actions on educational rather than administrative grounds.

DES ..... (Department of Education and Science) The branch of central government which is responsible for education in England and Wales.

EIS ..... (Educational Institute of Scotland) The largest professional organisation of teachers in Scotland.

Froebel Certificate ..... Teachers with a primary qualification can extend their training for an extra year (or its equivalent). This makes them eligible to become *Assistant Head Teachers*. In the past many teachers who took this additional training also entered for the Froebel Certificate - a more prestigious qualification offered by the Froebel Institute. Since 1975 the Froebel qualification has been discontinued.

Grant-aided School ..... A school outside the fully-maintained (ie, local authority) sector which receives part of its running costs from a central government grant. Its remaining costs are usually met from charitable sources and/or tuition fees. Approximately 1% of Scottish primary school children attend grant-aided schools. (Schools which receive no direct income from the state are known as *independent* schools.)

Independent School ..... See *Grant-aided School*.

Infants' Mistress ..... See *Assistant Head Teacher*.

Integrated Day ..... A term which defies accurate definition. Basically, it relates to forms of school organisation which seek to replace lock-step, subject-specific class teaching. For instance, all the case study teachers gave their children a work programme which could be followed in any order that the children wished.

Local Authority Adviser ..... A local authority official who has special responsibility for particular age groups and/or areas of the curriculum. Essentially, he or she acts as the link between the schools of a local authority and the higher reaches of the administration in that authority.

Maintained School ..... See *Grant-aided School*.

Open Plan School ..... A school built to a design which does not include self contained classrooms. Typically, an open plan school has fewer internal doors and walls than a classroom school accomodating the same number of pupils.

Primary One - Seven ..... Official designation of the seven years of primary education in Scotland. At five years of age children enter primary one. Sometimes the primary range is also divided into lower primary (P1-3) and upper primary (P4-7).

SED ..... (Scottish Education Department) The branch of central government in Scotland which, among other things, is responsible for matters affecting primary education.

Team-teaching ..... A method of teaching whereby a 'team' of more than one teacher shares responsibility for a group of children. Team teaching is another attempt to break down the tradition of one class, one teacher (see *Cross-teaching*).

Vertical Streaming ..... (Also known as vertical grouping or family grouping.) A mode of school organisation whereby teaching groups comprise children whose ages differ by more than a year. (Vertical streaming is usually presented as an alternative to year grouping.)

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INTRODUCTION

'If structures exist it is up to the observer to elicit and analyse them'

(Jean Piaget, *Psychologist*)

Following the publication of the Scottish Education Department *Primary Memorandum* (1965), the educational provision for young children in Scotland has advanced in a number of directions. The emergence of new specialisms, the transformation of existing schemes of work and the build-up of resources for 'slow learners' have all been the subject of detailed discussion and recommendation. Associated with these organisational and curricular changes there has been an equivalent movement towards rethinking the educative environment that contains them. The architectural label 'open plan' has often been used to characterise such trends. Yet, the link between the educational and architectural usage of these terms is rather weak and implicit. The work of teachers and architects tends to be surrounded by an atmosphere of apprehension, diffidence and ambiguity. In both spheres, theory and practice remain unable to integrate their respective understandings and experiences.

Until recently, attempts by researchers to overcome this separation of theory and practice have been hindered, even foiled, by the absence of suitable two-way communication channels. In the past, questions posed by practitioners have been obscured or trivialised by the specialist processes and languages of educational research. Not surprisingly, the answers offered by researchers frequently turned out to be inadequate, incomprehensible, or irrelevant.

Origins of Project

In 1973-74 the SCRE began to address this problem and produced *Space for Learning*, an informative account (written by Malcolm

Corrie) of 'teaching and learning in some Scottish open plan primary schools'. Given the success of this initiative, the Council sought outside financial support for its extension. Unfortunately, however, various economic, administrative and financial problems intervened. For example, the imminent reorganisation of local government in Scotland meant that it was unusually difficult to develop school-based research programmes extending beyond May 1975. The officials and elected bodies which could give their approval for such research had not yet come into being. For this and other reasons Malcolm Corrie moved on to an alternative project and the open-plan research programme was reluctantly allowed to lapse.

A new possibility emerged towards the end of 1974. In September of that year the lower primary department of a Scottish grant-aided school (ie, a school outside the local authority system) moved from an old classroom building into a newly-constructed open plan annexe. Following discussions with his colleagues, the headmaster of the school approached the SCRE with the suggestion that the new building might be a worthy research topic. Somewhat to the headmaster's surprise - but also with his active support - the offer was speedily processed and within a matter of weeks an application for research funds was submitted to the Social Science Research Council in London. The proposed twelve-month investigation - 'A Case Study of a New Scottish Open Plan Primary School' - eventually began on April 1st, 1975.

Aims

The case study research strategy was first outlined in an early information sheet:

> 'Initially, the study will build upon topics suggested by the school staff and other interested people (eg, parents, HMIs, the architects). Later, the staff will be invited to comment, during the course of the investigation, upon interim and provisional research reports. Finally, to preserve the integrity of the school and the researcher, prior and mutual agreement will be established as to the publication of any material that might emerge from the study'.

As this quotation suggests, the research aimed to be (i) selective, (ii) collaborative, and (iii) mutually acceptable. By these

means it was hoped to overcome some of the communication problems referred to earlier.

(i) From the outset there was no intention to describe or analyse every aspect of life in an open-plan school. Topics - selected as the research proceeded - were chosen to be of relevance both to the workings of the case-study school and to open-plan schooling in general. As such, the essays in this report are more issue-centred than school-centred. Their primary concern is to illuminate the general through an analysis of the specific.

(ii) The decision to seek the participants' comments on preliminary drafts of the report arose from a belief that educational research can gain a great deal from the insights and experiences of educational practitioners - especially those who work in areas of development and innovation. To the extent that schools bear the brunt of educational change, classroom practice is usually more responsive to outside pressures than educational research. For instance, researchers may or may not choose to be fully aware of the educational consequences of changes in the birth rate. Teachers, however, have no such option; they have to adjust to the changes whether they understand them or not. In a general sense, this places researchers and teachers on opposite sides of the theory/practice divide. Researchers tend to be articulate *about* practice but incompetent *in* practice whereas teachers tend to be competent *in* practice but inarticulate *about* practice. Fortunately, these perspectives are complementary. Thus, the essays in this report attempt to merge the skills of researchers and practitioners by making explicit and accessible some of the ideas and practices that have developed alongside the growth of open-plan schooling.

(iii) The guarantee of mutual agreement over publication helped to initiate a relationship of open-ness between the researcher and the school. The allied policy of submitting interim reports also helped in this respect. Both strategies prevented the researcher's concerns from drifting too far from those of the practitioners. In turn, the school's acceptance of these essays at the end of the research was merely a minor element in a dialogue that had commenced almost fifteen months earlier.

Operation

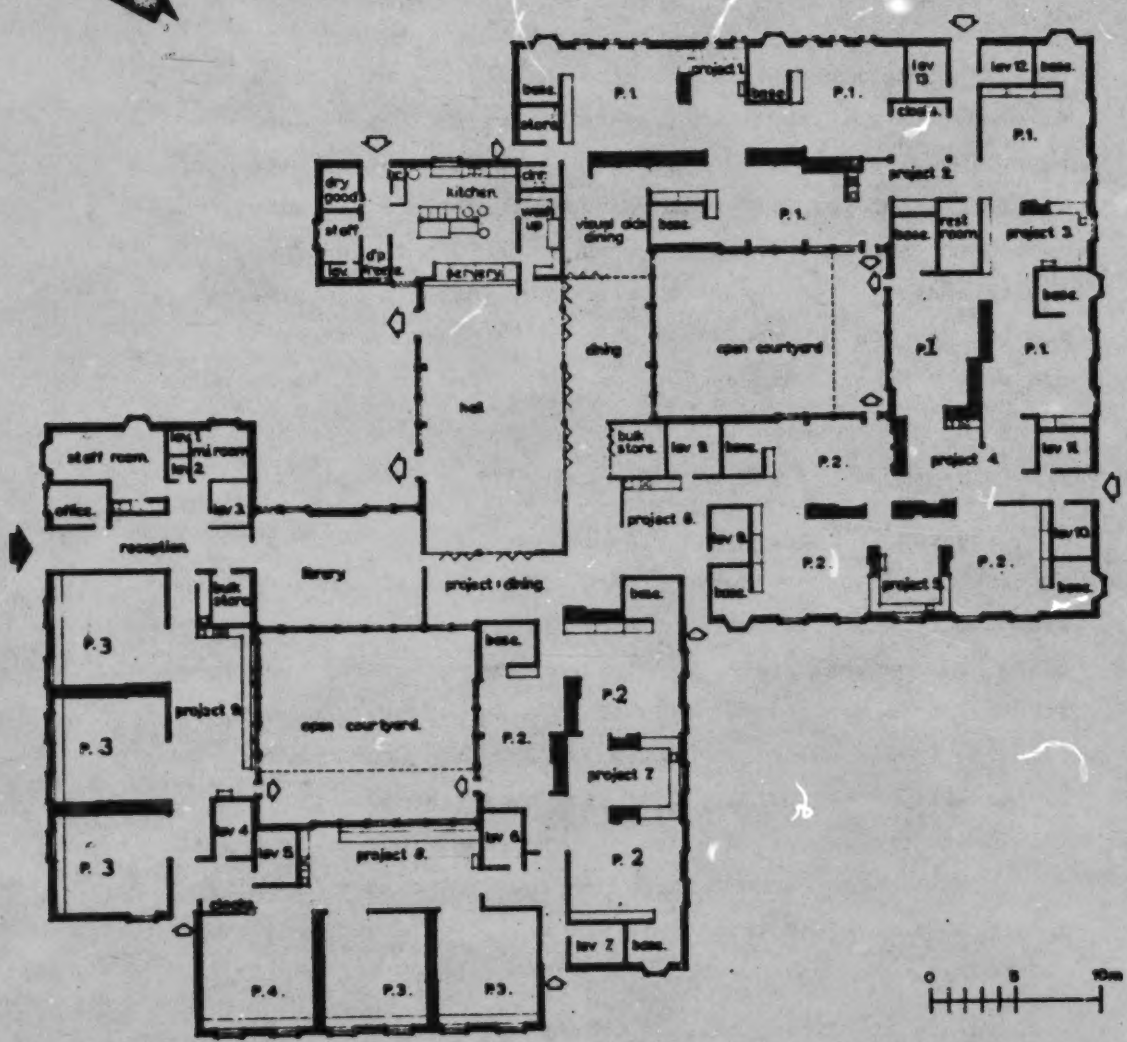
Consonant with the belief that educational research should move much closer to the world of the teacher and pupil, the open-plan study was built round a timetable of school-based fieldwork. For instance, over a ten month period between April 1975 and February 1976, the researcher spent seventy days at the case-study school observing, interviewing and writing. The remainder of the research time was taken up with the analysis of results; the collection of material from other sources (books, journals); and the preparation and production of the final report.

The identity of the case-study school has been deliberately omitted from this report. In this analysis of open-plan schooling, its name is not so much a secret as an irrelevance. Similarly, but for different reasons, teachers' and pupils' names have been changed. In so far as all the teachers and pupils in the case-study school were observed, all of them contributed to the research. Hence, to highlight the actions or words of one person rather than another is considered to be misleading if not invidious.

The Case Study School

The single storey open-plan annexe referred to in this report was constructed using the CLASP system of industrialised school building. The original intention was to provide class bases and communal areas for eighteen year-groups of twenty-five children between the ages of five and eight. However, by the time it was opened in September 1974, the new building also housed some of the primary four (ie, nine-year-old) children. This arose from a separate decision to reduce the overall school roll. The merger of classes that followed from this reduction also meant that the average size of the primary three and four classes was nearer thirty than twenty-five pupils.

During its first year the open-plan annexe was staffed by eighteen class teachers, two assistant head teachers (one of whom was also a class teacher), one full-time gym teacher and two part-time teachers of craft and music. In addition, three full-time auxiliaries assisted the class teachers with their day to day work. The routine administration of the open-plan



LOWER PRIMARY DEPARTMENT

(Showing class bases for 1974-5)

building was shared by the two assistant head teachers who, in turn, liaised with the (male) head teacher of the primary department and the headmaster of the entire school.

The fact that the open-plan annexe was part of a grant-aided school made it stand out from local authority primary schools in two ways that are relevant to this report. First, its pupils were drawn almost entirely from professional families. Second, it operated without the support of local authority advisers. In practice, this latter state of affairs meant that the educational policy of the open-plan annexe derived much more from internal school-based discussion than from external decisions taken at the local authority level.

In Search of Structure

Although written independently, the essays in this report share a unifying feature. Each one focuses on the emergent rationale or structure of open-plan schooling. In this context the term 'structure' refers to the way in which the separate but related elements of a school (eg, curriculum, methods, design, administration) can be envisaged - in theory or in practice - as comprising a coherent but dynamic system. Thus the removal of doors and walls does not signal a move towards 'unstructured' education. Rather, it foreshadows a change from one kind of structure to another. Open-plan schools aspire to a logic of their own. They are not ill-assorted aggregates of broken-down classrooms. Their aim is to be different, not degenerate.

Just as the case-study school came to terms with the potentialities of working in an open-plan setting, so these essays try to come to terms with the complexities of contemporary schooling.

Outline of Essays

The first two essays provide an historical context. *Becoming an Open Plan School* describes the events, controversies and decisions that surrounded the design, and inauguration of the case-study building. The second essay *(Open Plan Schools Past and Present)* takes a wider view and pin-points some of the social and educational factors which have influenced school design in Scotland over the last three hundred years.

Essays three to six probe various aspects of life in the case-study school. *First Days at School* discusses some of the techniques of teaching in an open-plan setting by exloring the initial school experiences of one class of five-year-olds. The fourth essay *(The Case of the Missing Chairs)* investigates the relationship between teaching techniques and material resources. Specifically, it considers the widely-held notion that a modern primary school can be organised around less than one chair per pupil. *All Work and no Play?* (essay five) examines the changing character of the primary school curriculum by concentrating on a group of teachers who wanted to abolish the conventional distinction between work and play. The sixth essay *(Episodes of School Life)* rounds off this section by giving a descriptive account of a day in the life of a pupil, a teacher and a class. As such, it augments the ideas contained in *First Days at School*.

The final and concluding essay *(The Logic of the Open Plan School)* brings together the preceding accounts. Its purpose is two-fold. First it identifies and interrelates some of the historical events, educational assumptions and practical constraints that, taken together, have created the form of educational organisation known as open-plan schooling. Second, it underlines the fact that any open-plan school is not a static entity but a finely balanced dynamic relationship between sets of beliefs and practices. As such open-plan schooling is always changing in response to new events, new experiences and new ideas.

Thus, the last essay attempts simply to explain the emergence of open-plan schooling, not to justify it in any particular form. Whether or not open-plan schools are a 'good thing' is something that research cannot demonstrate by itself. To the extent that goodness is also related to varying moral and social standards, it cannot be ambiguously deduced from the application of a research technology. Ultimately, the value of open-plan schooling is a matter for the community to decide, not the researcher. The essays in this report may assist in that decision making, they cannot replace it.

17 12th February 1976.

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BECOMING AN OPEN PLAN SCHOOL

'Of course every social anthropologist recognises that societies exist within a material context ... But such context is not simply a passive backcloth to social life; the context itself is a social product and is itself "structured".'

(Edmund Leach, *Anthropologist.*)

This essay distils the precipitating events and critical decisions that helped to shape the architecture and organisation of a new Scottish open plan primary school.

The official and semi-official literature on open-plan schools makes constant reference to the problems faced by teachers moving into such new settings. For example, the report of a DES survey in 1971-72 included the following recommendation:

> 'Teachers (particularly but not only head teachers) who are to be transferred to new buildings should have the opportunity to visit schools of similar design and, if possible, their own new school before it is occupied, so that they may more readily prepare for the change'.

Similarly, an EIS report on The Open Plan Primary School (1972) suggested that 'whenever possible ad hoc in-service training courses should be made available to teachers on appointment to open-plan schools' and that 'Colleges of Education should prepare students ... for employment in open-plan schools' by using the 'expertise and knowledge of teachers experienced in such schools'.

This expressed concern about the novelty of open-plan schooling became a topic for part of this research. It was decided to capitalise upon the 'expertise and knowledge of

teachers' by collecting and reporting the experiences of those who had participated in the changeover from the old to the new buildings. Thus, this account not only documents a sequence of events but also presents the participants' views on the significance and value of the change strategies that were followed.

In the Beginning

The origins of the open-plan annexe can be traced back to 1967 when a decision was taken to amalgamate two all-through, grant-aided, single sex schools. Although these two schools shared a common name and origin, their main buildings occupied three sites more than a mile from each other. The initial idea - subsequently realised - was for the two separate parts of the girls' school to be transferred to the more extensive boys' campus. At that time, the respective school staffs had very little contact with each other. In particular, the members of the primary departments had evolved different schemes of work and patterns of organisation.

Given the fact that overall pupil numbers were to remain the same before and after the merger, the provision of new buildings on the boys' campus was an immediate concern. However, until higher-level decisions had been taken as to the extent, nature, location and financing of the new accommodation, much of the early school-based discussion was couched in very general terms. A working party was convened by the head teachers of the boys' and girls' schools to explore these and related issues. After a period of fruitful discussion the working party eventually met less and less frequently. As one member pointed out, its continued progress was impeded by a 'lack of something to bite on'.

In 1971 decisions began to crystallise. The primary staffs were officially informed of the development plans. These included the modification of the existing primary building (built in the 1930s) and the construction of a CLASP open-plan annexe for the younger children. A nine person 'Briefing Panel' was set up to retain overall planning responsibility. Its membership comprised the two infants' mistresses, five other class teachers, the head of the boys' primary department and, as chairman, the headmistress of the girls' school. The Briefing Panel met formally on seven occasions between June and December

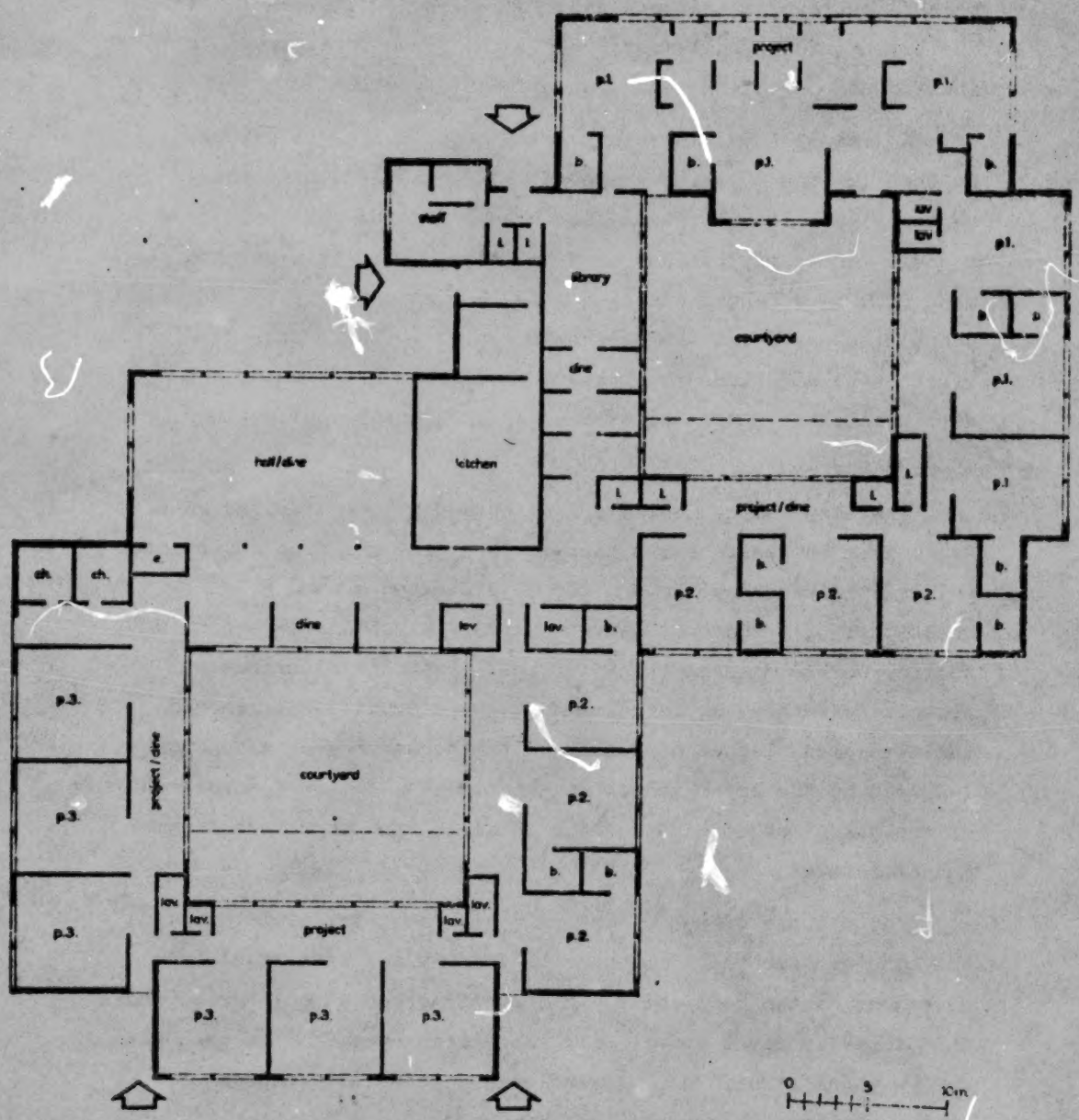
1971. Its work encompassed two broad areas: (1) the preparation of a detailed remit for the architects; and (2) the formulation of organisational plans and educational policy for the new buildings.

By the summer of 1971 the Briefing Panel agreed that the new 'lower primary' accommodation should follow a 'single storey honeycomb plan' and that it should provide teaching bases and communal areas for eighteen groups of twenty-five children (ie, six groups for each year from Primary One to Primary Three). This last decision revised an earlier decision by the head teachers' working party that the new building should provide for the first four years of the primary department.

Although the Briefing Panel accepted the prior decision to 'go open-plan' its members shared considerable uncertainty about the educational practicalities of such an innovation. Indeed, the absence of detailed plans at this stage merely heightened the feelings of doubt: the prospect of a 'hangar' for a school provoked 'strong reactions of horror' among the rest of the staff. To confront these feelings, the architects and the head teachers of the two schools made contact with the CLASP headquarters in Nottingham and, as a consequence, were invited to visit a new open-plan CLASP school in the same county. Later, the two infants' mistresses and two other class teachers made a similar trip. In the event, this Anglo-Scottish contact proved a turning point. An opportunity to meet other practitioners and to witness a similar open-plan school in operation enabled these senior teachers not only to overcome their own doubts, but, equally important, to answer the practical questions posed by their more apprehensive colleagues.

Early Plans

The first drawings for the new building were produced in October 1971 and represented an architectural interpretation of the early proposals put forward by the Briefing Panel. Subsequent drawings gradually expressed a more educational emphasis as members of the Panel came to appreciate the limitations and possibilities allowed by the CLASP system of industrialised building. In particular, close attention was paid to the disposition and orientation of the various elements of the plan.



LOWER PRIMARY DEPARTMENT

(Earliest published plan, 1972)

For instance the Briefing Panel considered the location of the pupil lavatories (were they within easy reach of the teaching areas as well as the playground?); the size of the class areas (could they be expanded by decreasing the size of the home bases?); the availability of storage space (what was the optimum balance between centralised and class-based facilities?); and the extent of the hall (could it be realigned or expanded to incorporate one of the adjacent project areas?).

A series of outside visits also began during this period. By the time the building was eventually occupied, only three teachers (out of twenty) had not been inside another open-plan school. (Most of them had been on official visits, some had made private arrangements, and a few had attended open-plan schools as part of their teacher training.) These outside visits were sometimes reciprocated. The headmistress of the Nottinghamshire CLASP school also spent a (planning) weekend in Scotland.

The most complex questions discussed by the Briefing Panel arose from the last of its tasks: the formulation of educational policy. In essence, the debates reverberated around two questions: (1) should the lower primary timetable be extended to incorporate a lunch break (at that time both contributing schools sent their children home at one o'clock)? (2) should the open-plan classes be formed on the basis of year groupings (as used by the boys' school) or should they follow the pattern of the girls' school and include children from more than one annual intake?

The minutes of one of the panel meetings faithfully records the tone and substance of the debates: 'Views were widely divergent on the desirability of extending the school day beyond the dinner interval and also on the allied questions of open-plan and vertical streaming'. As indicated, these differences of opinion related to pre-existing patterns of organisation. The representatives of the girls' school hoped to retain vertical streaming while the teachers from the boys' school saw the provision of dining facilities in the new building as a means of dividing the school day into smaller units of time.

To the extent that the members of the Briefing Panel aligned themselves on the basis of their existing school allegiances these debates were as much about 'them' and 'us' as they were about different patterns and priorities for primary education. Various alternative solutions to these problems were debated at length but a satisfactory compromise successfully eluded the Briefing Panel. In the meantime, an outside decision to feed older children in the new building meant that dining facilities were, in fact, incorporated in the plans. Nevertheless, the original points of contention remained unresolved. Gradually, it became clear that, taken individually, the issues could not be resolved through compromise; there were no halfway positions that could be adopted.

In this atmosphere of impasse an appeal was made to a higher authority within the school. Following joint discussions between the chairman of the Briefing Panel and the headmaster of the boys' school (who was also head-designate of the combined schools), the debate was foreclosed in favour of a 'temporary' solution. It was decided that the new open-plan building should follow a system of year grouping (as preferred by the boys' school) while, at the same time, retaining a shortened day for the children in primary one and two (as preferred by the girls' school).

Taking Shape

The following eighteen months were relatively quiescent. The Briefing Panel was disbanded and the architects, surveyors and contractors were left to prepare for the construction phase that began in the summer of 1973. Over this period the school-based arrangements were handled informally by the two infants' mistresses and the head of the boys' primary department - all of whom were to retain their responsibilities when the new building was opened. Most of their joint attention was focussed upon the selection of equipment, furniture and fittings.

The most crucial planning decision at this time hinged upon the optimum allocation of tables and chairs for each class area. This last issue arose in the context of a wider debate. There is a school of thought in primary education which holds that a class of children do not need a full complement of chairs and tables since a proportion of the class will always be engaged

on non-sitting activities or working outside the teaching area. Whatever the educational merits of this idea, it offers a very strong financial inducement: money that is saved from a global furniture allowance can then be spent on other items (eg, storage trolleys, work benches, display screens). In practice the power of this financial logic helped to tip the balance. It was decided to order sufficient chairs and tables for only sixty per cent of the expected population of the new building.

As the amalgamation date inexorably approached, a new sense of urgency entered the discussions about the new building. Small-scale but essential arrangements needed to be agreed and implemented. In February 1974 (ie, six months before amalgamation) the headmaster of the boys' school set up a new lower primary Working Party which remained in existence until May 1975. This eight-person committee was an extended version of the informal triumvirate which had existed up to that time.

The agenda of the Working Party's first meeting indicates the range of tasks that still remained to be considered:

(1) *Building:* telephones; fire alarm; bells; furniture; blinds/curtains; clocks.

(2) *Organisation:* allocation of staff, pupils and bases; names of classes; rules and regulations; fire drill; requisition; stock, stationery; textbooks; timetable; specialist staff; intervals; use of hall/dining room; library (use of supervision); plans for removal; remedial work; auxiliaries; care of fabric; access for pupils; communication with parents re opening; curriculum planning; coordination of work; supervision of lunch and play time; organisation of display areas; pianos.

(3) *Running of Department:* assemblies; communication with staff and parents; registers; attendance sheets; reports; confidential records; care and charge of equipment (TV, tape-recorder, radios, record players etc); use of building outwith school hours.

At a later stage the Working Party also outlined the general and specific responsibilities of the three auxiliaries (eg, supervision of the playground, recording of radio programmes, preparation of paper and paints); and organised a timetable to suit the specialist teachers (music, craft, remedial and gym), some of whom taught elsewhere.

The only new plans prepared by the lower primary Working Party related to the landscaped play areas that were to adjoin the new building. Again, the discussions were influenced by both economic and educational considerations. Although the Working Party was committed to the idea of specially equipped areas (as had been the case in the girls' school), it was never able to move beyond the stage of preparing sketches and models. Any detailed specifications and estimates had to be put aside until the final (actual) costs of the building became known.

Moving In

At the end of June, 1974 all the lower primary teachers at both schools packed their books, materials and equipment in preparation for the start of term on August 20th. In early August, however, the opening day of the autumn term had to be put back a fortnight since it became clear that the new building would not be ready as planned. Some of the teachers did not learn of this new development until they returned for a staff meeting in the week preceding the 20th August. By then, the entry date required further revision.

These new developments prompted a significant rethink of the plans - it became impossible to delay the start of term any further. Temporary teaching arrangements were brought into operation. Fortunately, the building used previously by the lower primary department of the girls' school was to remain empty until the first of October. It was hastily reopened and used as short term accommodation for the six primary two classes. The primary three children were not so lucky. Their teachers drew lots and moved with their classes into the vacant spaces in the boys' school. The gymnasium, the medical room and a cloakroom were pressed into service. Meanwhile, the primary one children remained at home for a further three weeks.

Although these bridging solutions undermined the Working Party's plans for a smooth phased entry into the new building, their effects were not entirely negative. For instance, the period of temporary accommodation in the old buildings gave the primary two children and their teachers a chance to establish working relationships without being faced with the uncertainties of an entirely new situation.

A further consequence of the delays was that much of the teaching apparatus (eg, books and equipment) remained packed away and relatively inaccessible. For this reason the programme of work followed by the teachers during these early weeks necessarily stressed activities that required a minimum amount of additional materials. This enforced shortage of resources - together with the limitations on space - prompted the teachers to place particular emphasis upon seatwork, especially maths and writing. Later, several of them remarked that in this way their classes had been given a 'flying start' in crucial areas of the curriculum.

A final positive spin-off from the late start to the year was that the individual P1 teachers were better prepared (both mentally and materially) to receive their new classes. While the children were at home (or nursery school) their teachers prepared work cards, organised maths and reading material, and generally thought out what they were going to do when the new building was finally ready. One teacher felt that this made it easier for the children to settle in. Two other teachers also indicated that the advance planning had had more long term repercussions. Ten months later (ie, when they were interviewed) they attributed the fact that they were 'ahead' in their work to the extra preparation that had been possible the previous September. Finally, one experienced teacher even suggested that the start of the new year had been made easier because the new children were five weeks older.

Eventually, the parents of primary one children were informed that the new building would be open on Monday, 23rd September. Throughout the previous weekend the builders and teachers worked together to render the new annexe habitable. As the carpet was laid, so the tables and chairs were put in position. One week later the primary two classes transferred from the girls' school and the primary three classes crossed the playground from the old building as their individual areas were made ready.

By the middle of October, 1974 the new building had become the sole workplace for twenty teachers, three auxiliaries, seven cleaners, five kitchen staff and about 470 children.

Contrary to expectation ('We prepared for a disaster that never happened') the transfer proved relatively uneventful. No major difficulties interrupted the 'smooth chaos' of the actual move: 'The children didn't turn a hair' ... 'They came in and sat down and we never looked back'. The only contrary reports came from the three teachers who were new to the staff and from the primary one teachers whose class areas were flooded by a burst pipe shortly after the start of term.

First Reactions

Because of the long period leading up to the establishment of the new building, seventy five per cent of the teachers had at least two years warning of the move. The remaining staff joined the school within that period but, in every case, knew about the open-plan building before accepting their appointments. One benefit of this advance notice was that both contributing schools began consciously and visibly to move towards more open forms of organisation. For instance, classroom doors were left open; children were encouraged to move about the school unsupervised; and corridor space was used for quiet areas or for painting, craft and library work. Thus, the children as well as the teachers and parents were encouraged to reflect upon the changes that were imminent.

Even so, the teachers faced the move with mixed feelings. Excitement about the possibilities of such a design were tempered with apprehension about new and possibly intractable difficulties. The maintenance of standards, the elimination of noise interference and the management of the open-ness of the new building were repeatedly cited in this respect. Latterly, the merger of two separate staffs - each with their own established patterns of precedent and usage - was also envisaged as a potential source of difficulty.

In the event, many of the anticipated problems were much less prominent than expected. The novelty of the open-plan setting, the stop-go atmosphere at the beginning of term and the urgency surrounding the actual move gave the teachers (and children) only limited opportunity to dwell upon any such difficulties. One member of the working party portrayed the staff at this period as 'sisters in adversity'. Another

participant described the shared feeling among the staff in the following terms: 'We were all waiting to fall off the precice ... (but) we jolly well had to get on with it'.

Despite a range of teething troubles (eg, repeated failure of the heating system; fire doors that would not shut; windows that would not open; lights that fused whenever the kitchen was in use; and toilet handles that fell off at the slightest hint of juvenile pressure), the rest of the first term passed relatively uneventfully. Although the delivery of furniture and equipment was delayed, most of the critical deficiencies could be rectified using supplies from the old buildings. This proved especially significant with regard to the level of seating. All the teachers - even those who had been in favour of a reduced provision - 'topped up' their complement of chairs and, in some cases, raised the level to over one hundred per cent.

The remaining task for the lower primary Working Party during the first year's occupation of the new building was the compilation and recompilation of a 'snagging list' for presentation to the contractors and suppliers. While these shortcomings and deficiencies were gradually overcome, the completion of the outside adventure playground proved impossible. No further funds were forthcoming and the scheme was reluctantly allowed to lapse.

The final organisation of the new building differed from the intended brief in two respects. First, it included one of the primary four class and second, it embodied an incipient form of vertical streaming. The presence of the primary four class arose from an interim decision to decrease the size of the overall school roll by about fifteen per cent. The ultimate goal (to be achieved in the lower primary building in 1976-7) prescribed five classes of twenty five children in primary one and two, and four classes of thirty in the remaining years of the primary school. For this reason the new annexe opened with a transitional form of organisation: eighteen classes spread over four years in the ratio 6:6:5:1. The start of the 1975 autumn term saw a further contraction (5:5:5:3).

The gradual emergence of a weak form of vertical streaming arose partly from this contraction, but also from the fact that two teachers did not move from their original teaching areas when they took new classes in 1975-6. Both these events meant that the children in primary two, three and four began to work in areas originally designed for younger children. More important, they began to work alongside these children in communal areas.

Ironically, both of these changes took the school back towards forms of organisation that, after much deliberation, the 1971 Briefing Panel had decided to reject.

IN RETROSPECT

This account began by quoting the reports of two surveys, both of which imply that in recent years very few teachers have had the opportunity to 'readily prepare' for any move into a newly-designed school building. If this state of affairs is still true, then the events described above must be considered exceptional. They are, however, in line with what the reports indicate to be desirable. For this reason, if no other, they are worthy of some further general consideration.

1. Many interpretations of educational change focus on the short term difficulties and constraints. By placing events in a more extensive time span, this account suggests that the move into the new building was only a minor episode in a series of long term and perhaps more momentous changes. The earlier decisions to integrate two single sex schools, to implement vertical streaming and to open classroom doors may, in fact, have represented a much more profound reorientation of the schools' educational values.

2. Although published accounts typically stress the importance of consultation between architects and teachers, they focus very little attention upon the attendant problems. The guiding assumption is that teachers know what they want; that they can agree about it among themselves; and that they can articulate their requirements in architectural terms. As this account indicates, none of these conditions is easily fulfilled. In particular, the design sequence used by educationalists may not

fit the conventions of architectural and building practice. For example, decisions that teachers would perhaps regard as relatively low down on their list of priorities may, in fact, be pre-empted by earlier and irreversible decisions unwittingly taken by the architects.

3. Similarly, prior discussions need not always produce consensus. There is always the possibility that they will generate heat rather than light. More important, differences of opinion may, as shown above, prove to be logically irreconcileable.

4. There is a further architectural issue which relates to the difference between building an entirely new school and building an extension or replacement for an existing school. When a new school is commissioned, many of the major decisions will, almost inevitably, have been taken before the appointment of staff. Thus the main problem is administrative - choosing the staff to fit the new building. When, however, an extension is to be built, the main problem is in the realm of design - fitting the school to the (existing) staff.

5. Advance educational planning is a precarious and delicate affair. Although it is possible to make elaborate preparations for a move into a new building, such plans can never cover all eventualities. Overplanning may create more difficulties than it solves. Indeed, the most crucial planning decision may be the identification of those issues which are to be deliberately neglected.

6. While a single unrepeatable event like a coronation or moonshot must be planned and rehearsed to the utmost detail, the opening of a school is a rather different affair. In an educational sense it is very difficult, if not arbitrary, to stipulate the point at which a school has become fully operational since cumulated experiences offer fresh opportunities and changed circumstances bring new problems.

7. The admittance of outside visitors to a new school poses special problems. It is sometimes suggested - as in the DES report - that new schools should be free from outside visitors. Yet, at the same time, it is also proposed that teachers should be encouraged to visit other 'schools of a similar design'. If

comparable schools are built and opened at about the same time, then both these conditions cannot be fulfilled simultaneously.

8. Although the logical analysis of the previous paragraph may seem rather academic, it has real practical consequences. For instance, what policy should a new school adopt when faced with requests from prospective visitors? Should it impose a twelve month moratorium and anxiously prepare for a 'gala' opening? Or should it allow spectators to attend its early and possibly fumbling rehearsals. Clearly, there are a number of considerations which might influence such a decision. First, any new school cannot impose a strict ban on visitors. A constant succession of adults will almost certainly pass through the building while classes are in session - tradesmen, architects, commercial representatives, administrators, inspectors (fire as well as educational) and so on. Second, visitors can be regarded as a resource as well as a hindrance. In certain circumstances an exchange of views with outsiders may help insiders to clarify their ideas or, better still, to resolve their immediate problems. Third, a policy with regard to visitors will also be influenced by the context of the school. It will depend, for example, on the status of the visitors, on the locality of the school (it is almost impossible to 'drop in' on a remote school); on the size of the visiting party; on the pattern and frequency of previous visits; on the type of activities that take place within the school; and, not least, on the collective predispositions of the receiving teachers. In certain schools it may be possible to treat visitors as a natural and unexceptional part of the school day whereas in other settings their presence would be surrounded with the trappings of a formal ceremony. Whichever the actual case, the open design of an open-plan school may, to an outsider, make unobtrusive visiting much more possible than in a closed classroom situation.

Summary

This essay has attempted to present the precipitating events and critical decisions that helped to shape the environment of one particular new school. Much more could be written. Nevertheless, to the extent that this account is concise rather than encyclopaedic it may provide an accessible starting point

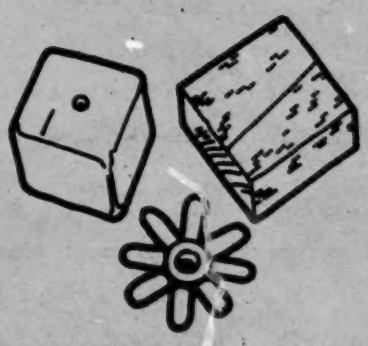
and some well-marked signposts for other people contemplating a similar journey. While it is true, of course, that other travellers will have different destinations, it is also true that many of them will use equivalent means of transport.

Note: Besides information provided by the participating teachers, this essay also includes information derived from the working parties' minutes and the architect's planning reports. The quotations are taken from the following published sources:

Educational Institute for Scotland (1972) The Open-plan Primary School, Edinburgh: EIS (mimeo).

Department of Education and Science (1972) 'Open-plan' Primary Schools (Education Survey 16), London: HMSO.

December 5th, 1975.



OPEN PLAN SCHOOLS PAST AND PRESENT

'Structure itself occurs in the process of becoming ... it takes shape and breaks down ceaselessly'

(Emile Durkheim, *Sociologist*)

Originally, this essay was planned as a descriptive account of changes in primary school design in Scotland since the 1940s. Further research, however, drew attention to a nineteenth century variant of the open plan idea known as the monitorial system. Almost by chance, these inquiries revealed that the case study school had also introduced a monitorial form of organisation at that time. Thus, there is a sense in which, for the second time in its history, the case study school has 'gone open plan'.

A popular explanation for the emergence of open-plan schools is that they are cheaper to build than comparable 'classroom' schools. A more sophisticated argument is that open-plan schools represent a tacit (if not malign) conspiracy between cost-conscious administrators, award-seeking builders and architects, and progressive (ie, non-teaching) educationalists.

In a narrow sense these ideas are correct. Yet, viewed historically, they lose much of their logical force. They may account for the establishment of open-plan schools but, equally, they can be used to explain every other change in school design in Scotland since before the Reformation. Although such analyses can suggest the sources of motive power in the education system, they are unable to predict the actual form the system will take.

To explain patterns of school practice and design in economic or administrative terms is rather like predicting the destination of a travelling motor car simply from a knowledge of its engine size.

Thus, to provide a more specific account of open-plan schools it is necessary to consider a much wider range of influences and events. This brief essay attempts such a task. It tries to distinguish and unravel some of the social, religious, political, economic, demographic and educational factors that have helped to shape Scotland's elementary and primary schools in the past and in the present.

The first section (*After the Reformation*) discusses the parochial school system that spread through Scotland in the seventeenth and eighteenth century; the second part (*The Industrial Revolution*) indicates the changes that led to the introduction of a form of open-plan schooling in the early part of the nineteenth century; and the final section (*Open-plan Revisited*) outlines the events that foreshadowed the reintroduction of a comparable school design after the Second World War.

AFTER THE REFORMATION

The basis for a national system of schooling in Scotland dates from the era of the Reformation. In the religious and political ferment of that time, formal moral education was proposed as a means of repairing and revitalising the torn fabric of a disordered society. The *First Book of Discipline*, a policy document prepared by John Knox and others in 1560, advocated that rudimentary instruction in the principles of religion should be offered, without regard to sex or class, to the youth of the nation. Nearly 150 years elapsed before this revolutionary vision of universal schooling finally obtained the force of law: in 1696 the *Act for Settling of Schools* laid down that the local landowners (ie, taxpayers) were to provide sufficient funds for a schoolmaster and a 'commodious' schoolhouse in each parish.

To some extent this Act brought the law into line with existing practice. Certain parishes already provided schooling on the basis of earlier permissive legislation; and many towns

had maintained burgh schools since well before the Reformation.

Prior to the establishment of day schools, children of the 'lower orders' received their only formal instruction through the agency of the church. The minister or his assistant (usually known as a 'reader' or 'catechist') took extra Sunday services which were designed to extend and reinforce the teachings of the church. Families with additional material resources were able to make a more elaborate provision. Tutors and governesses could be employed in the home; and older boys could be sent away to College (ie, University) or to one of the more prestigious burgh schools (eg, Edinburgh High School). However, for most young people, secular or vocational education remained the responsibility of their parents or employers (often the same people).

As indicated by the Act of 1696, most parishes retained only one teacher and one school. If a special house was provided for the schoolmaster, the schoolroom usually formed part of the same building. Otherwise, the church, the home of one of the pupils, or some other building served as a substitute.

Not surprisingly, the schoolhouses and schoolrooms of the 18th century were small and sparsely furnished. The inside dimensions of the house could be as small as thirty feet by twelve feet. The only furniture in the schoolroom might be the seating offered by tree trunks or rough-hewn planks. (The use of tables, desks, slates and blackboards did not become widespread until the middle of the nineteenth century.)

Here is how one historian has described the schoolhouses of that period:

> Built in accordance with local custom, they were simple cottages, sometimes of one apartment, sometimes a 'but and ben' - structures of dry stonework, with two small windows and a rough deal door. The inner walls were clarted or smeared with a mixture of clay and cowdung. The roof of undressed rafters and cross spars supported a thatching of fern, heather, or straw ... The floor was of trodden earth or clay. The single cottage was divided by a wooden partition, thus forming living quarters for the master at one end and accommodation for the school at the other.

Sarah

Guided by the wisdom of the national church, the local presbyteries drew up rules and regulations for the parish schools that fell within their jurisdiction. The school day and the school year were derived from the patterns followed by the collegiate (ie, monastic) schools of the pre-reformation period. Schools were open from dawn to dusk and the school day was divided into two or three sessions with at least an hour in between. Likewise, schools were open for five and a half to six days per week and only closed for about two weeks at Christmas and five weeks in the summer.

The teaching methods used in the parochial schools were also of ancient ecclesiastical derivation. The teacher would read out the 'lesson' line by line and the school children would respond individually or in unison. By these non-literate means, children began to learn the Lord's Prayer, the Creed and the words of the more popular psalms.

The most significant educational changes in the post Reformation period came in the realm of curriculum. School texts had to meet the approval of the newly established Church. In 1648, for example, the Church of Scotland produced its own version of the Shorter Catechism to replace a privately produced edition which was felt to be theologically suspect. This early textbook contained simple questions and answers of a religious or moral character which schoolchildren were expected to learn by heart (eg, Who created you?: Answer: God; Of what was (sic) you made? Answer: Of the dust of the earth.).

Clearly, much of what passed for instruction in an 18th century school was repetitious; the form and content of the basic lessons varied little from day to day. Nevertheless, children who became more proficient were given a chance to show their virtue by leading the catechism or even deputising for the schoolmaster in his absence. Hence, any child who filled this role regularly became known as the leader or dux of the class - a term still used in Scottish schools to describe the most academically successful pupil.

The Shorter Catechism also played its part as a reading primer. From 1696 it appeared with individual letters (and numbers) printed on the cover and was widely used in that form

until the end of the nineteenth century. Later editions also included syllables. After children had learned to recognise their 'letters' they graduated to the more complex sounds of the syllables and then on to the printed material inside the Catechism. Gradually, therefore, children began to learn from print rather than through the medium of verbal communication. By the end of the nineteenth century the first 'R' had found its place as a basic element in the school curriculum.

For many children this type of rudimentary instruction represented the high point of their formal schooling. Any additional subjects required the pupils to provide special equipment (books, papers and pens) and, furthermore, to make supplementary payments to the schoolmaster. For these reasons, if no others, writing and arithmetic remained educational luxuries.

Throughout this period parental poverty, outbreaks of famine, epidemics of disease, the seasonal demands of an agricultural economy and the reluctance of landowners to pay higher taxes all helped to keep school attendance and pupil achievement at a low level. Indeed, there is still some doubt whether every parish could claim the existence of a regularly functioning school or whether the related precept of universal education was widely accepted among the tax-paying sections of the community.

In the context of this account, however, it is perhaps more important to consider what happened to the children who actually went to school than to argue about the overall levels of schooling. It would be interesting, for example, to establish the varying patterns of school attendance. (Did the pupils attend all day and every day? What happened during the summer when they were required to work on the land?) Likewise, historians know relatively little about the composition, size and work of the schools. (What age range did they cater for? What was the ratio of boys to girls? Did adults attend in the winter? Did whole class teaching methods predominate? Did the curriculum vary for different children?)

The evidence relating to all these questions is, as yet, rather fragmentary. Different sources yield different estimates. It is not clear, for example, whether every child was expected to

attend all of the day-time sessions prescribed by the presbyteries. It is certainly true, however, that extra (ie, specialist) classes were held in the early morning or the evening, but it is much less clear how the intervening periods were spent.

The regulation curricula of the 18th century are somewhat better understood. An indication of their form and content can be learned from presbytery records. Certain parish schools - like most of the burgh schools - offered advanced courses which were taken (and paid for) subject by subject. Besides reading and writing, the older and more successful boys might receive instruction in Latin (essential for university in the early 18th century); geography (biblical and modern); arithmetic (actually a form of book-keeping); navigation and French. Such a curriculum did not emerge by chance. The gradual introduction of these secular subjects accurately reflected Scotland's growing status as a trading nation.

THE INDUSTRIAL REVOLUTION

From the middle of the eighteenth century the type of schooling described above was subject to increasing external pressure. Indeed, it was partly responsible for creating the pressure. The industrial revolution, an unprecedented growth in population (65% between 1755 and 1820) and waves of migration towards the growing industrial centres all helped to change the face of Scotland's education system.

Within the existing framework of legislation, the lowland parish and burgh schools were unable to cope: the law only stipulated that one school and one schoolmaster could be maintained by local taxation. In short, an education system devised in the sixteenth century to meet the small-scale needs of Scotland's domestic and rural economy could no longer satisfy the growing technological appetite of the factory system nor act as an effective guardian of the nation's morals.

The school system began to diversify as different localities, groups and individuals sought to fill the gap between the increased demand and the limited supply. A wide range of non-parochial institutions began to flourish. 'Adventure' schools were set up

by private teachers; 'subscription' schools were founded by groups who then employed a teacher; charitable schools were established by organisations like the Society in Scotland for the Propagation of Christian Knowledge; and church 'sessional' schools were formed to augment the existing parochial provision.

Despite these efforts the number of children who were bypassed by the school system continued to be a source of national alarm. Most of the recommended solutions were based on the provision of extra one-teacher schools. Schemes of this type were woefully inadequate. They were not only undermined by a shortage of suitable teachers but also by the inability of many of their prospective pupils to pay for such an education - even if it could be provided. The problem, therefore, was both economic and educational.

An alternative solution - to increase the pupil/teacher ratio was rarely considered. Certain burgh schools had large classes (eg, 150 boys) but also employed extra teachers for specialist subjects (eg, English, writing, Latin). Such forms of organisation however, presupposed a wealthy population which could provide the necessary accommodation and salaries.

By 1810, however, a radically new form of school organisation - the monitorial system - began to gain ground in the urban areas of Scotland. Basically, it offered a solution to the problems of mass education. Some years previously, the Rev Dr Andrew Bell (a Church of England minister born in St Andrews) had been made superintendent of a military male asylum (orphanage) near Madras on the Indian subcontinent. While discharging his duties Bell had devised a system whereby hundreds of pupils could be taught in the same room by one master assisted by monitors drawn from the more able pupils.

As befits it origins the monitorial system was run on military lines. 'Drilling' was the educational order of the day. Here is a contemporary account of the system as it was used in the 1820s to educate the 600 boys of the Edinburgh sessional school:

> 'The tables are placed round the walls of the schoolroom, and the remainder of the floor is left quite unoccupied by furniture, except for the master's desk. One half of the scholars always sit at the desks with their faces to the wall, employed in learning to write or cypher, while the other half stand on the floor, either reading, or practising the rules of arithmetic. The classes on the floor are ranged in segments of circles behind each other, fronting the master's desk, which is at the head of the room and, in front of each class, are placed the teaching monitor and his assistart, whose duty it is to preserve order and attention.
>
> At five minutes before ten every morning (except Sunday) the school bell is rung. Every boy enters with his slate slung around his neck. Precisely on the stroke of ten in the school clock the doors are closed for prayer, which is offered up by the master. That duty having been performed, the words of command are successively given, "recover slates", "sling slates", "recover books", "give pencils", "second division, seats". The classes of the elder division then proceed to read, spell, explain, or learn grammar etc under their respective monitors, while the children of the second division write or cypher until half past ten. At that time the first division are marched to their seats, and the second division occupy their places on the floor, a revolution which is performed in about a minute and a half. The second division then proceed to read or spell, and the first to write till eleven o'clock, when another shift takes place ....' (quotation abridged).

Although Bell and other protagonists claimed the monitorial system as a new 'discovery' (sic), it had certain similarities with the methods already used in the larger burgh schools. The specialist teachers in these schools normally taught in the same room as the schoolmaster. Nevertheless, whatever its origins, the open-plan monitorial system was the beginnings of cheap urban education in Scotland. Its rationale became widely known in the 1840s through the work of John Gibson, the first HMI to be appointed in Scotland and a former master of the Madras Academy in St Andrews.

With the aid of the monitorial system and its many derivatives, the one teacher school could be retained in urban areas. It continued to be the norm until the last quarter of the nineteenth century. Around that time, however, changes in legislation, a growth in the number of qualified teachers, and various innovations in building technique (eg, the development of central heating) made it educationally possible to incorporate a group of one-teacher schools under the same roof. These major developments initiated

two trends which have continued to the present day: a gradual increase in school size, and a gradual decrease in the pupil/teacher ratio. (In 1872 the size of the average school receiving public grants was 102 pupils, and the pupil/teacher ratio was 80 : 1. By 1967 the comparable figures were 295 and 22 : 1.)

The monitorial schools resembled present day open-plan schools in three respects: (i) they had more than one instructor working in the same schoolroom; (ii) they made very little provision for circulation (ie, corridor) space; and (iii) they not only fitted a particular method of instruction but also resonated with the demands of a limited budget. By the same token, of course, there are many differences between the two systems, particularly in the areas of curriculum and teaching method.

In practice, the monitorial schools of the nineteenth century signalled, if not hastened, the decline of the parochial school system which had served Scotland for more than a century and a half. However, as shown below, the image of the one teacher rural school has, until the present day, continued to have a formative influence of the organisation and design of elementary and primary schools.

OPEN-PLAN REVISITED

For a number of reasons - largely stemming from the general economic situation - the Scottish education system was relatively quiescent before the Second World War. The War era, however, marked the beginning of a thirty year period of massive expansion and continuous renewal (eg, 85% of all school places in Scotland have been built since 1946). Although the need to replace and repair damaged schools was an immediate concern, the over-riding pressures for change were social and political rather than economic and technical. The 1940s were pervaded by a visionary atmosphere of social reconstruction. The most obvious educational outcomes of this period were the wartime legislation separating primary and secondary education and the associated decision to raise the school leaving age from 14-15 years (enacted in 1947).

Initial efforts to build new schools and rebuild old ones were hampered by a shortage of skilled labour and a dearth of traditional materials (eg, bricks). These shortcomings prompted the government to initiate the Hutted Operation for the Raising of the School Leaving Age. A standard rectangular design was worked out which could be constructed with prefabricated components. When these grey, single-storey concrete HORSA huts were erected between 1947 and 1953 they provided accommodation for nearly 200,000 British schoolchildren (separate Scottish figures are not available). As a result the administration of the raising of the school leaving age was carried out successfully. According to official reports, no children had their schooling curtailed for lack of accommodation.

The HORSA scheme for the design and erection of schools was so successful that in the late 1940s the Ministry of Education in London established a Development Group - headed jointly by an HMI and an architect - to assist local authorities with their own post war school building programmes. Although the HORSA huts relieved the pressure on secondary schools caused by the raising of the school leaving age, a new pressure was being created by an increase in the birth rate and an associated movement of (mainly) young families towards the towns.

The HMI in charge of the Development Group was Derek Morell - later to become a formative figure in the early years of the Schools Council. To design schools for the new ideas in primary education at that time, Morell presented his architectural colleagues with an educational brief based on the following assumptions about the provision of space:

> 'Post war schools need more useful floor area than those built before World War Two .... (They) need more individual spaces .... of many different sizes and shapes .... Some of the spaces will be quiet and clean, others noisy and dirty. The tools to be used may be pens, needles, chisels, lahtes, pianos or vaulting horses. There is thus a need for very different physical conditions in different spaces. These spaces must be adaptable not only to present variety of uses; but also to the changes which the future is bound to bring, sometimes suddenly, sometimes imperceptibly. The spaces are designed for children.'

In turn, the architects responded with a set of solutions that could be accommodated within the official scheme of cost limits (introduced in 1950). System building, multiple use of space and

compactness of design were the key features. By such means the amount of designated teaching space per child was increased between the 1940s and the 1960s while, at the same time, the ratio of construction costs to teaching space was actually lowered. (Although these factors had a very visible effect on school design, their influence on practice was almost certainly overshadowed by the gradual shrinkage of class sizes and, more important, by the parallel withdrawal of the selection examination at the end of the primary stage.)

The success of the Development Group prompted certain local authorities to create their own building consortia. In 1957, for example, Nottinghamshire County Council initiated the Consortium of Local Authorities Special Programme (CLASP) to tackle the specific problems associated with building schools in areas troubled by mining subsidence.

By integrating their experiences in rural and semi-rural areas like Hertfordshire and Oxfordshire, the Development Group and other consortia progressively focussed their architectural attention on the disposition of space within a school, on the distribution of the resources which might be shared, and on the utilisation of the unused areas inside and around the building. Gradually, therefore, there was a blurring of the architectural and educational boundaries that previously had separated indoors from outdoors, corridors from cloakrooms, and classrooms from halls and dining rooms. Later, when the first open-plan school was built in 1959 for fifty pupils at Finmere in Oxfordshire, some of these physcial boundaries were removed altogether.

The introduction of open-plan ideas into rural schools was relatively easy. Many of the 'new' methods advocated at that time (eg, non-streaming, vertical grouping) had always been an inevitable part of their stock in trade. In this educational sense, therefore, rural schools have never ceased to be open-plan.

After the experience of working on small schools, the Development Group felt ready to tackle a larger urban setting. Working in close collaboration with the Plowden Committee, the Eveline Lowe primary school was designed in 1963 to accommodate 320 inner London children. From that time, open-plan schools became predominantly a suburban phenomenon. They were built on

new housing estates to cope with localised fluctuations in the numbers of children of primary age.

The above information about the post war development of primary school design is derived solely from the English experience. Partly this is because the comparable Scottish information is not so readily available but partly, too, because many of the centralised initiatives - such as the HORSA scheme and the withdrawal of secondary school selection - applied uniformly to Scotland as well as to England and Wales. Nevertheless, in the absence of confirmatory evidence it would be incorrect to assume automatically that identical sets of demographic and educational conditions applied north and south of the border.

Certainly, however, there are a number of similarities. The first post war Scottish open-plan primary school (Kirkhill, in West Lothian) was opened in 1969, two years after the Eveline Lowe School. Likewise both of these schools were built in conjunction with major government reports on primary education. The Eveline Lowe School was an attempt to give concrete form to the ideas of the Plowden Report (1967) and Kirkhill school was designed to illustrate the principles set out in the SED Memorandum Primary Education in Scotland (1965). A further parallel is that Kirkhill - like Eveline Lowe - was also a cooperative venture; this time between the Scottish Education Department and the West Lothian County Council.

More recent developments have also matched the English experience. The major Scottish centres of open-plan schooling - such as Aberdeenshire and the Lothians - have also been in comparable areas of suburban expansion.

Nevertheless, a range of peculiarly Scottish factors - described below - have also intervened in the process. Hence, although it is possible to relate school architecture to a set of United Kingdom conditions it is also necessary to cite more local influences if the explanation is to encompass the changes in curriculum and teaching method that emerged over the same period.

1. Between 1964 and 1966 three new colleges of education were opened in Scotland, (Hamilton, Craigie and Callendar Park). All of these new colleges were planned to meet the increased need for primary teachers. Hence, without being overshadowed by the assumptions of secondary education, these colleges have been free to develop specialist teacher training in the areas of primary and infant education.

2. This increase (from seven to ten colleges) led directly to an influx of staff. Some new lecturers came from England and were recruited on the basis of their experience in innovatory primary schools. The expansion of the colleges also created a bulge of young teachers fully informed about the educational ideas that were current at that time.

3. In 1965 the SED regulations for the training of teachers were changed. It no longer became possible for a teacher to become certificated for both primary and secondary education. This change was reflected in a decrease in the number of secondary school teachers (and especially male graduates) who were appointed with secondary school ideas to posts as headmasters of primary schools.

4. 1966 saw the first appointment of a Froebel trained teacher to the post of HMI. The Froebel qualification (now renamed) required additional training in infant and lower primary methods and was increasingly taken by experienced rather than newly qualified teachers. As such, many Froebel students immediately took up influential posts of responsibility when they returned to the school system.

5. In the mid 1960s, local authorities began to appoint Advisers with special responsibility for primary schools. Certain of these Advisers have since been prominent in the development of open-plan schools.

6. Over the same period there has also been a growth of in-service training (ie, retraining) for teachers. This, too, has helped in the dissemination of ideas.

7. Likewise, there has been a greater degree of job mobility among teachers. Again, this has increased the possibility that innovatory practices might spread from school to school.

8. Finally, the growth of pre-schooling in the late 1960s and early 1970s not only brought infant ideas to the attention of more schools and teachers but also to the attention of greater numbers of parents. To some extent this may have facilitated the introduction of open-plan forms of organisation (used for many years in nursery schools) into the early years of the primary school.

Conclusion

This essay has tried to throw light on some of the changes that have occurred in the history of elementary and primary education in Scotland. The overall picture - like the historical record - is inevitably incomplete and uneven. It is difficult, therefore, to weigh the importance of specific events and trends. Nevertheless, this account would indicate that if the birth-rate continues to decline at the present rate, then the construction of new open-plan primary schools in Scotland may, in fact, become a relatively rare occurrence. Instead, new forms of open-plan architecture will probably survive in the secondary sector where they will continue to foster the same educational assumptions (eg, activity methods, curriculum integration, non-class teaching) that were realised many years previously in the infant schoolroom. Whether these 'open-plan' ideas achieve pre-eminence will, as in the past, depend for a large part on the secondary school examination system. This system - currently under review - is a major influence on the curriculum and teaching methods used in Scotland's schools.

Whatever the outcome of this official review it is certain that open-plan schools, like the parochial, monitorial, and classroom systems that preceded them, will continue to influence as well as to reflect the changing fortunes of the nation's life.

Sources of Information

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Provides a detailed account, parish by parish, of the school system from its earliest days. A storehouse of facts and figures. Also reveals (as does J Wood, see below) that writing was considered an unsuitable subject for a girl ('She micht mak' an ill eese o't an be writin' tae the lads', p.xiii) and, later, a subversive subject for both boys and girls ('If you teach them to write, they will learn to forge', Wood p.229).

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'The point has now arrived when the principles worked out for village schools in Building Bulletin 3 (which described Finmere School) can be more widely applied ...' (p.45).

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Grant, J (1876) History of the Burgh Schools of Scotland, Glasgow: Collins.

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House of Commons (1816) Report of the Select Committee on the Education of the Lower Orders in the Metropolis, London: House of Commons.

Contains a list of all schools in Britain which used the 'British system' (a version of the monitorial system used initially in non-conformist schools). Five of the schools were situated in Scotland.

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Describes the role of central government in the control of school design. Similar conditions applied to England and Scotland since the administrative split between the two countries was not so pronounced as it is today. However, the upsurge of school building in England in the 1840s and 70s was probably not reproduced in Scotland as parish and burgh schools already fulfilled the existing demand.

Law, A (1965) Education in Edinburgh in the Eighteenth Century, London: University of London Press.

Particularly useful for its information about the organisation of the large schools that were established in urban areas. Also refers to the practice of having more than one class in the same room.

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Contains (p.4) the physical description of a school used in the above account.

McNicholas, J (1973) Open-plan Primary Schools, MEd Thesis; University of Hull.

See next source.

McNicholas, J (1974) The Design of English Elementary and Primary Schools (a select annotated bibliography); Windsor: NFER.

Both these sources contain detailed information about English open-plan schools, past and present. The latter also provides a historical summary of changes in building regulations and cost limits.

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A seminal handbook which describes Stow's version of the monitorial system as used in the Infant Society's subscription schools in Glasgow. Gives details of the inadequacy of the parochial system and at the same time advocates infant training as the appropriate 'moral machinery' for overcoming the existing deficiencies.

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Whitbread, N (1972) The Evolution of the Nursery-Infant School 1800-1970, London: Routledge & Kegan Paul.

One of the few accounts that looks at the relationship between educational theory, social change and educational practice.

Withrington, D J (1962) 'The SPCK and Highland Schools in the mid-eighteenth Century', Scottish Historical Review, Vol 41, pp.89-99.

'The SPCK statement that in 1758 there were 175 parishes without parochial schools cannot be taken to mean that these parishes were all without schools and schoolmasters. Some areas seem not to have had many public schools, ie, schools maintained by heritors or tenants - the extreme north western Highlands and Shetland are among them - but even these had a few, and had, too, very small seasonal schools kept in parishoners' houses at their own expense. There can be little doubt that only a limited number of parishes were without public schools in 1758, and that fewer still had no means of education at all. (p.99)'.

Wood, H P (1974) 'Froebel Courses in Scotland', Froebel Journal, No 30.

Discusses the history and influences of Froebel training in Scotland.

Wood, J (1828) Account of the Edinburgh Sessional School, Edinburgh: John Wardlaw.

Provides a very detailed account of the origins, organisation, methods and curricula of one Edinburgh monitorial school. Also gives some indication of the use of the monitorial system in other Edinburgh schools.

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Although some of the interpretations seem a little dated, there is much useful information. For example, it reveals (Chapter 1) how public education in the 19th century was widely advocated as a means of combating crime and poverty.

December 10th 1975.

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FIRST DAYS AT SCHOOL

'These (observations of classroom life) reveal that what may seem random and unstructured moment-by-moment may have a structure when viewed cumulatively over a period of time'

(Rob Walker & Clem Adelman, *Educationalists*)

This essay considers the strategies, assumptions and processes which underly the more visible aspects of teaching in a primary school. It builds upon the work of one class of five-year-olds and their teacher as observed over a fourteen day period at the beginning of the 1975 autumn term. The first part provides an explanatory commentary of the events of that period. The second part is more speculative. It extends the initial idea and tries to identify some of the 'intangibles' of teaching.

For more than a decade British primary education has been the object of international attention. As a result, certain schools have been inundated by a wave of visiting teachers, administrators, politicians and researchers - some of whom have recorded their impressions for a wider audience.

Obviously, such published accounts differ widely in their scope and quality: some have achieved best-seller status, others, no doubt, have remained unread. All, however, dwell preferentially on the more innovative and visible aspects of school life. Here is an illustration taken from one of the best known examples:

> "ITEM: An infant school, also in a rapidly changing immigrant neighbourhood in London. At one side of the hall, a small wooden platform serves as a stage for two splendidly costumed little girls, recent immigrant from the West Indies, who are improvising a ballet for the headmistress. Two more girls, of Cockney origin, join the ballet and soon eight more youngsters sit down to watch, applauding enthusiastically when the ballet ends. While this is going on, three boys are busily engaged in building a castle in one corner, while in another corner a boy and girl, playing the xylophone, are joined by four more ..."

Sketch book material such as this only provides part of the story. It gives the impression that the modern primary school is a stable, harmonious system populated by autonomous and mutually supportive individuals. It accurately outlines a set of polished performances, but, in doing so, fails to recall the weeks of repetitious rehearsals, the occasions when the actors forgot their lines, or the nights when the lights failed and the scenery collapsed.

To a degree, this type of foreshortened perspective is inevitable. It arises from the brief duration of the school visits. Thus, to fill in the background a different kind of investigation is required. To understand fully the significance of a classroom event it is not sufficient merely to observe its enactment, it is also necessary to be aware of its history, to be alert to its possible outcomes and, above all, to be sensitive to the thoughts and intentions that guide its participants. In short, it is necessary to move much closer to the day to day world of teachers and pupils.

This essay - which focuses on a class of five-year-olds during their first days at primary school - attempts to make such a shift. That is, it is concerned not only with the turbulent stream of classroom events, but also with the reasons, strategies, patterns and processes that lie beneath its surface.

The decision to study this age group was based on two related assumptions. First, that a child's attempts to come to terms with the distinctive features of schooling are likely to be more visible at this age than at any other time. And secondly, that the beginning of a new school year is the occasion when experienced teachers are usually most explicit about the

codes of practice (rules, standards, sanctions, etc) which they use to regulate the social diversity of classroom life.

The core data were gathered on nine of the first fourteen days of the school year. A longhand record was kept of the general flow of classroom events and day by day a typed transcript of these notes was returned to the teacher for her reactions. These initial data were then augmented by interviews with at least one parent of each child and by the observer's experience of teaching the class for two days later in the term.

Thus, the evidence in this account is drawn from the field-notes and the parent interviews, whereas the interpretative commentary is derived from a dialogue between the teacher and the observer conducted over the remaining weeks of the term. To simplify the reader's task, the commentary can be read independently of the evidence.

DAY ONE

At 8.20am on Tuesday, 26th August Mrs Robertson arrives at school for the first day of the autumn term. (It is not only the start of her fifth year of teaching since leaving college, but also the start of her fifth year in the same school.) The class area already shows signs of her presence. Pictures are displayed on the wall; games and maths equipment are laid out on two trestle tables; paper, crayons and plasticine are arranged on some of the low tables; and the house, library and painting areas are carefully rendered attractive as well as accessible.

Stephen and his mother arrive while Mrs Robertson is in the staff room. In the meantime, Miss Downie (an assistant Headteacher) takes Stephen under her wing and shows him round the class area. Mrs Robertson returns and takes over from Miss Downie. Michael arrives with his mother and father. Both boys are shown where to put their coats and schoolbags. At Mrs Robertson's prompting Stephen and Michael each choose a game or activity and are shown to one of the small tables. They are left to amuse themselves as more children arrive. While being shown around the area each child is drawn into conversation ('What is your name? What would you like to do?').

Michael gets up from his chair leaving a large wooden shoe (used for learning how to tie laces) on the table. Noticing this, Mrs Robertson shows him how to put it back in its 'proper' place (ie, on the high table). Meanwhile Nicola is rolling the plasticine on a table instead of on a board. Like Michael she is shown how to follow the correct procedure.

At 8.50am the last few children are waiting to be taken round the class area. By nine o'clock all the children who are due to come on the first day have arrived. Three are sitting at the plasticine table; two are working with jigsaws; one is assembling unifix (maths) blocks; and three are just watching. The children begin to talk among themselves (eg, 'At nursery school we had to play on the floor with bricks - but we didn't have to do sums with them.').

Commentary

1. From the outset the class area is deliberately laid out to be attractive and eye-catching to the children, and to facilitate their circulation and access to equipment and materials. This state of readiness did not arise unheralded. In practical terms, it was created during the previous week when Mrs Robertson spent three full days at school.

2. Mrs Robertson's initial contact with the children is deliberately built on a person-to-person rather than a teacher-to-class basis. This not only makes it easier for her to learn about the children individually but also minimises the chances that they will be overwhelmed by a more formal approach.

3. Although there are only nine children present on the first day, Mrs Robertson is unable to attend to all of them at once. As a result, she tries to provide activities which the children can do with the minimum of direct supervision.

4. The children are deliberately introduced to a set of rules about tidyness; that is, conventions about the use and replacement of equipment. These rules, however, do not necessarily meet with immediate acceptance. They may conflict with patterns of behaviour established elsewhere (eg, at nursery school). Thus, the children may have to unlearn old ideas before they can learn new ones. (All the children have spent at least one year at nursery school.)

5. The children have come to school with all sorts of expectations about what will take place when they get there. To the extent that these expectations are unfulfilled the children may become disoriented. (Interviews with the parents later revealed that disappointment was the most frequent negative reaction shown by the children during the first days of term. For instance, one child was (in the words of her

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mother) 'bitterly disappointed' that she did not learn to read and write on the first day.)

> At ten past nine Keith asks to draw and is shown the pile of paper on one of the small tables. He sits down and starts crayoning on the top sheet of the pile (thus preventing anyone else from taking paper). Mrs Robertson suggests that he might sit somewhere else. When he has found a new seat she asks him what colour he is using ... Michael receives a caution about the level of his 'playground' voice. Mrs Robertson leads Julie and Peter by the hand to show them around the class area. They are taken to the painting area. Douglas is asked to lend Julie his pinafore so that she can paint. Someone finds a piece of jigsaw puzzle on the floor. Emily has found her way into the house and is using the ironing board. Mrs Robertson remarks to the class in general: 'Oh dear, someone doesn't push their chairs in'. She is given some green foliage by Mrs Nuthall who has an adjoining area. Peter is sent to fetch some water. Julie comes back to the class area having finished her painting in four minutes. Just before 9.20am Mrs Robertson asks Michael about his drawing ....

Commentary (cont'd)

6. Mrs Robertson continues to encourage the children to find their way around the class and adjacent areas. Her aim is to increase their self-reliance - a necessary condition for the kind of teaching she plans to develop over the following weeks.

7. She also begins to analyse the children's intellectual, social and emotional competence. Such skills are demonstrated, for example, in a child's capacity to remember a list of instructions, to work at a co-operative task, or to cope with the stress of being lost in a strange building.

8. By referring to 'playground voices', Mrs Robertson tries to establish the acceptable noise limits for the class area.

9. Mrs Robertson regards the maintenance of tidyness (ie, keeping objects in their place and ready for further use) as the personal responsibility of the children. This is a further condition for the development of individualised teaching.

10. In this type of situation a teacher must not only plan for the fact that she cannot attend to all the children at once but also for the fact that the concentration span of each child may be very short.

Keith puts his picture in his schoolbag. Mrs Robertson suggests that he puts it in his drawer and shows him where the drawer is located. At 9.25am the children are shepherded into the class base. ('What's that?' one of the children asks.) The stragglers receive special reminders ('Are you remembering to put the paint brushes back properly?'). A joiner arrives to replace a cupboard lock in the home base. Mrs Robertson changes her plans and takes the children to the unisex toilets. At 9.45am the children return to the home base and Mrs Robertson asks all of them individually about their families. Michael receives a reminder about not interrupting other people. Stephen is sent to look for the milk bottles. The children are lined up and are led to the milk crate. Mrs Robertson asks them to take their milk to an empty table ('We don't want milky plasticine') and then shows the class how to open their bottles. When they have finished she also indicates where they are to put the tops, straws and empty bottles. The children return to their earlier activities. Someone has left out a yellow crayon. Michael finds his way into Mrs Nuthall's area (next to Mrs Robertson's) and works with some toy cars. Other children are shown the sandpit outside and are left unsupervised (but overlooked by other teachers).

Commentary (cont'd)

11. Although this episode contains the first occasion when the class are taken as a group, the teacher's attention is still focussed on the attributes of individual children. For the children, however, it becomes a real class (ie, group) situation. While the teacher elicits information about their home circumstances (eg, family size), the children begin to learn how to take their turn in a group discussion.

12. The class teaching later that morning is quite different. The main flow of information is from the teacher to the pupils. In this sense the children are the receivers of knowledge, whereas previously they were the transmitters.

13. Although, ostensibly, Mrs Robertson merely shows Keith the location of his drawer, her action has much more than transitory significance. First, she is aware that Keith may not be able to read his own name and therefore must learn to recognise his drawer by non-literate means (eg, by its position in the drawer unit). Second, she wants to discourage the children from putting completed work directly into their schoolbags since, at a later stage, she intends to monitor their work before they take it

home. (When they start to use notebooks Mrs Robertson will indicate special places in the home base for the children to put work that is to be marked (see Day 10).)

14. Despite being interrupted by the joiner, Mrs Robertson switches without difficulty to another activity. Furthermore, having organised the children into a group for the first time, she deliberately retains this form of organisation rather than letting the children return to their individual activities.

15. At this stage the children have neither learned the 'boundaries' of their class area nor the composition of their class group. Thus, the more adventurous of them take advantage of the attractions to be found in other class areas (and the willingness of other teachers to receive them).

16. The children are deliberately taken to the sandpit since it is not visible from the class area. Mrs Robertson is interested not simply to see whether they can work on their own but also whether they can work at such a distance from the class base.

At 11.35am Mrs Robertson gathers the children together in the home base and tells them the story of the three bears. Some of the children keep interrupting. Eventually Michael is told that 'When I'm telling a story, you sit very quietly and listen. When you're telling a story, I'll sit and listen' .... Before letting the children return to their individual activities, Mrs Robertson reminds them to bring their pinafores the following day .... Douglas and Michael become noisy; Mrs Robertson takes them 'for a walk' while the rest of the class continue with their drawing, painting, etc. Meanwhile Miss Dean (another primary one teacher) comes into the area to report that the toilets are awash. When she returns Mrs Robertson takes her entire class back into the toilets and reiterates the correct procedures (eg, 'turn the taps on gently'). At 12.25 the children are asked to find their schoolbags and put on their coats. Peter is sent with Julie to show her how to put off the lights. When the children have gathered in the base Mrs Robertson reminds them about the toilets. Finally, she says a formal 'Good Afternoon' to the children. Their reply is ragged. She asks the children what her name is and then repeats the greeting. Their response is more appropriate. At 12.30 the children pick up their schoolbags and move out into the communal area where their parents are waiting.

Commentary (cont'd)

17. Mrs Robertson's decision to recount a story that the children already know is deliberate. She tells it 'for security, not newness' (see note 2). Nevertheless, this decision also relates to another purpose. As Mrs Robertson expects, some of the children have not yet learned how to listen to a story. Unwittingly they contravene two important rules. First, that listening is a passive activity; and second, that unless their questions are to the point, they should be asked at the end of a story rather than in the middle.

18. Mrs Robertson maintains her policy of talking to the children individually. Thus her reaction to Michael and Douglas's noisy interaction is to take them quietly outside the class area, not to make a public issue of it. Although unsure of the reasons that underly their exceptional behaviour, Mrs Robertson deliberately chooses this course of action. On the basis of her earlier interaction with these boys, she treats their outburst (and her own diagnostic and remedial reaction) as something that is of little relevance to the other children. Had she considered that the boys' behaviour was related to a more general issue (eg, a failure to replace equipment) she might have used the occasion to address the class as a group. As this incident suggests, Mrs Robertson's strategies for maintaining classroom control vary widely from situation to situation. Indeed, the most invisible strategy - that of observation rather than intervention - is probably the most pervasive at this stage in the school year.

19. The pupils' day is built round very short units of time and a generous supply of activities. In catering terms the curriculum is rather like a smorgasbord. The children help themselves from tables laden with attractive dishes produced earlier in the day. This analogy can be extended. The children can sit where they like, 'eat' as much as they like, and follow the courses in any order they like. One effect of this buffet-like arrangement is that the teachers are relatively free to circulate around their own class area and, for similar reasons, to enter each other's teaching areas. (Later in the year, this form of teacher movement becomes less pronounced since, in

effect, the buffet is transformed into a more formal dinner party.)

20. By asking Peter to show Julie the location of the light switch, Mrs Robertson begins to capitalise on the fact that the children can teach each other. Again, this is important to her overall style of individualised teaching. She also uses a similar chain-message technique to spread information around the class. For example, she is able to gather the entire group in the home base without ever addressing them publically.

21. The fact that Mrs Robertson has to take her class for a second formal visit to the toilets is the first evidence that her teaching strategies are not always successful. Repeatedly throughout the year she has to retrace her steps and 'start again'. To the extent that the children's learning is uneven and partial, Mrs Robertson's teaching must be cyclical and reiterative rather than linear and cumulative. On this occasion the children are taken through the same steps as before. On other occasions Mrs Robertson might vary the strategy and use a different route.

22. Mrs Robertson's rehearsal of the formal greeting ('Good Afternoon 1N') at the end of the day is not merely for her own benefit. She realises that there will be other occasions in the coming weeks when the children are likely to receive a similar greeting from an unknown (outside) visitor. By stressing this activity, Mrs Robertson hopes not only that the children will be well-prepared for such an eventuality, but also that no one (herself, the visitor or the children) will find it embarrassing.

DAY TWO

(This and later extracts from the fieldnotes have been chosen selectively to illustrate new and changing features of the classroom context.)

By nine o'clock eighteen children are present. Parents are hovering in the doorway. Julie stands watching the others. Morag has burst into tears .... Three children are drawing, four are working with the plasticine, two are painting, two are building with unifix, one is working with beads, one with a jigsaw and one with a set of wooden dolls. The remaining two children cluster around Mrs Robertson .... Julie sits alone in the home base reading her birthday book. Morag is looking for Mrs Robertson. Nicola tells the boy sitting next to her that he is 'not allowed' to work with plasticine on the table .... Laura (a newcomer) has left a tin of crayons where she was drawing. Julie puts it back with the other tins. A boy from another class looks into the area.

Commentary (cont'd)

23. Mrs Robertson is not surprised that one of the children bursts into tears. Her subsequent action, however, is hampered by her lack of knowledge about Morag. Her response, therefore, can only be one of general reassurance. Later in the year she will be in a much better position to identify the precipitating factors of such behaviour. Thus her responses will become much more specific and person oriented.

24. This episode indicates that the 'old' children have not only learned but also have begun to teach the newcomers about some of the special rules concerning the use and location of equipment.

At about nine fifteen Mrs Robertson shows the children who have been working with plasticine what to do when they have finished. In particular, she warns against mixing the colours. Nicola's tea party has turned into 'bathing the baby'. Morag plays with the unifix blocks but eventually leaves them to look for Mrs Robertson who is in the painting area helping Michael to wash his hands .... Later, when all the children are gathered in the home base, Mrs Robertson explains the difficulty of removing plasticine from the carpet. Douglas interjects: 'What's that clock for?'. Mrs Robertson takes Morag to the toilet. She fears an 'accident' had happened (it hadn't). The remaining children talk among themselves. When Morag returns Mrs Robertson asks Julie to show Nicola how to put the class light out. All the class are asked about their brothers and sisters. At 9.36am Mrs Robertson begins to teach the children an action game. Michael repeatedly pokes his neighbour and is moved to another place. The group move on to a number game. Morag begins to cry and, at Mrs Robertson's suggestion, moves to sit beside her. Everyone sings 'Happy Birthday' for Julie. Rona

shows Stephen the light switch. The 'old' pupils return to their activities while Mrs Robertson takes the new children to the toilet.

Commentary (cont'd)

25. Some children take up more of Mrs Robertson's time than others. Basically this is because they do not fit easily into the type of teaching that she is trying to establish. In some cases, for instance, the children are unable to work without regular supervision; in other cases they are quite capable of independent work but choose to ignore the rules and conventions that are accepted by the other children.

26. The differentiation between 'new' and 'old' children is the first occasion when the class fall into well defined groups. Nevertheless, this structure is only temporary and will be dissolved by the start of the following week. Generally, Mrs Robertson does not make use of formal groups to organise her teaching but, as above, forms them on a temporary, ad hoc basis. Likewise, the location of the 'plasticine table' may move from day to day.

While the new children are at the toilet, Emily and Nicola reconvene the tea party. Michael, Keith and Douglas join them. A few minutes later (9.53am) Douglas and Michael start a mock knife fight at the tea table. Keith watches and the girls carry on preparing the party .... Douglas puts down the knife and starts to pass the toy iron over Michael's hair .... The toilet group return and Mrs Robertson reminds the boys in the tea party to behave more appropriately. She then moves into the painting area. The knife fight becomes a sword fight .... (10.08am) Douglas moves out of the house and begins to wave his knife in front of Peter who is seated at the plasticine table. Mrs Robertson intervenes, smacks Douglas' bottom once with the palm of her hand ('I'm very cross with you'), and makes him sit on his own. Christina wheels a small pram through the class area while Mrs Robertson reminds the remaining members of the tea party about the noise-level of their 'playground' voices. Mrs Robertson then takes Laura for a walk round the painting area .... At milk time (10.20am) Christina asks 'Do we have this every day?'.

Commentary (cont'd)

27. The 'knifefight' and its eventual resolution is a turning point in Mrs Robertson's relationship with Douglas. Her decision to smack him was taken in the light of the knowledge she had accumulated over the preceding two days. On balance she felt that the gravity of the situation justified the intensity of the remedy. Later that day Douglas told his parents about his experience. They came to see Mrs Robertson and, upon hearing her explanation, endorsed the action she had taken. They, too, were concerned about their son's behaviour. While at nursery school Douglas had suffered from asthma. As a consequence, his broken attendance record allowed him to contravene the standards that were normally applied to other children. In addition his nursery teacher had been reluctant to enforce such standards for fear of reactivating the asthma. In the parents' own words (as recorded during an interview) Douglas had become 'uncontrollable' at nursery school. Although he continued to be a regular focus of Mrs Robertson's attention, Douglas' general demeanour became much more subdued after this shared experience.

28. The fact that Mrs Robertson chooses to take Laura into the painting area illustrates a dramatic shift in her attention. Unlike Douglas, Laura does not place any overt demands on the teacher (see Note 25). Nevertheless, Mrs Robertson is quite aware that she has not previously shown any apparent desire to paint. Thus, although certain children apparently receive more attention than others this does not necessarily mean that the remaining children are beyond Mrs Robertson's field of vision.

29. Christina's question 'Do we have this every day?' indicates that while some children (especially those with older brothers and sisters) may be fully conversant with the nature and conventions of schooling (see Note 5), there are others who find it a significant source of wonder and amazement. At times Mrs Robertson builds upon this atmosphere of fantasy and mystery. She feels that it is a useful way to excite the children's curiosity and thereby retain their attention. For instance, each number (1, 2, 3, etc) is introduced to the children with a story which features a character or object of

that shape. In the case of the figure 2, the story is about a swan (see also Note 40).

DAY THREE

At 8.30am Stephen works with the plasticine while Mrs Robertson moves the tables to give better access to the bricks. David arrives with a group of other children. Nicola bursts into tears. Christina tries to befriend her but is rejected. Douglas starts to paint. David works with a puzzle on the high table. Mrs Robertson asks him to sit at a low table or to take it on the floor. (8.45am) Mrs Robertson and Christina discuss the previous day's events over the telephone. Nicola (now recovered) takes over at Mrs Robertson's end. Several new parents arrive at once. Keith shows his father where his schoolbag is kept. Simon wanders about carrying a tub of plasticine. Julie arrives clutching her birthday cards. Michael instructs a new boy on the use of crayons ('Take a whole box; take a whole box'). (8.57am) The entire class are present for the first time (10 girls, 13 boys). David returns the jigsaw puzzle with the pieces dismantled.

Commentary (cont'd)

30. Mrs Robertson moves the furniture about since, specifically, none of the children have yet used the bricks that are stored in a corner. This strategy also eases the demands that the increased class size places upon the existing equipment. In general, Mrs Robertson deliberately arranges (and rearranges) her class area to make the best educational use of the available resources. In this sense her teaching is quite consciously interventionist. Some areas are made more accessible than others, some equipment is brought out from the cupboard, some items are hidden away (see Day Ten).

31. By this stage in the year some children have already internalised the ruling conventions of the class area. As far as Mrs Robertson is concerned this is a mixed blessing. The children begin to feel at home but at the same time also begin to show signs of restlessness and disenchantment. For this reason, if no other, Mrs Robertson tries to schedule her work at this stage so that something new appears in each day's work programme (see Note 29).

32. Just as Mrs Robertson learns about the children, they also learn about each other. Friendships and social groupings begin to be formed.

> (9.02am) Mrs Robertson walks round the tables and asks the children to tidy up and go into the home base. The experienced class members are asked to help the new ones. Emily tells her neighbour: 'You have to push your chair in'. Ewan points towards the home base and asks 'Is that it?'. A boy and a girl from another class come into the area and ask Mrs Robertson if they can paint .... (9.08am) In the home base, Mrs Robertson reiterates her jigsaw policy (viz. they should be replaced on the high table but not before they have been reassembled). She then says a formal 'Good Morning' to the class and, for the first time, marks up the register. When Julie (the second person on the register) is asked 'Are you here?' she pauses and then replies 'Yes' in a tone of voice that suggests she finds the question totally pointless. (As if to say: 'Yes, of course I'm here today'.) After registration, Colin is asked whether his brother is older or younger than himself. He is unable to reply. 'Is he bigger or smaller than you?'. Colin gives an answer .... Mrs Robertson reads the Mr Happy story to the class. There are very few random interruptions although some children mistake pauses in the story for invitations to ask questions .... (9.26am) The experienced children are told about choosing their activities: 'You don't need to ask. If you want to paint and there's an easel free ....'. Morag starts to cry and is taken onto Mrs Robertson's lap.

Commentary (cont'd)

33. The arrival of two children from another class to ask if they can paint reinforces the idea that the children have not yet developed a strong sense of classness.

34. Julie's amazement at being asked 'Are you here?' when Mrs Robertson marks the register is a unique event never to be repeated in the context of that class. By the time the registration has been completed she has learned - like all the others - how to give the appropriate response ('Yes, Mrs Robertson'). At all levels teaching is characterised by the repeated use of 'psuedo questions' (ie, questions which are not designed to be treated literally). As this illustration indicates, children are not always aware of the real meaning of these questions. At the same time, however, it also reveals that, if shown, they can rapidly learn their real purpose.

35. The discussion between Mrs Robertson and Colin about his family is a good illustration of the fact that discourse between teachers and pupils is multi-layered. For the teacher's part she not only learns about Colin's home setting but also about his competence with mathematical relationships, his knowledge about family structure (eg, brother, sister) and his ability to keep to the point of a discussion.

36. This is the first time that Mrs Robertson reads a new story to the children. To control them without constantly interrupting the story Mrs Robertson varies the inflection of her voice. Nevertheless, some children still misunderstand the messages that she conveys by this means. Her dramatic pauses are sometimes taken to be opportunities to ask questions.

DAY FIVE

9.28am (in the home base). After listening to the children's 'news', Mrs Robertson produces Hamish (a matchstick man made from pipe cleaners). She then gives each child a book made of sheets of drawing paper stapled together. Different shapes have already been traced out at the top of the pages in the book. The children leave the home base, put their books on the small tables and then sit on the floor facing the blackboard. David has to be reminded to put his book on a table. Mrs Robertson leads the children in making shapes in the air. The children then return to their seats. Christina points to her name on the book and asks Mary 'What does that say?'. Douglas and Nicola begin to trace out the shapes using crayons. Mrs Robertson interrupts them. They are asked to put their crayons back in the tins and, with the rest of the class, put their hands on their laps. The children are requested to point to their names at the top of the page. Mrs Robertson scans the class. David has his book upside down. Three children are moved to different seats (so that all the left-handed children sit together). David has already started. The children are asked to choose a pencil and trace out the shapes, starting from 'Hamish's red dot' (a matchstick man marker on the left-hand side of the page). Colin (who is left-handed) works from right to left. When the children have finished Mrs Robertson demonstrates the next exercise on the blackboard .... (9.48am) The children are then asked to sit on the floor around the drawer units .... Each child has the same number on their tray as on their writing book. One by one they put their books away under Mrs Robertson's supervision.

Commentary (cont'd)

37. The distribution of writing materials represents the first time that the children are seated as a class group for a book orientated activity. For approximately the next ten days Mrs Robertson uses this all-class approach for the introduction of new topics. It is the 'dinner party' curriculum referred to earlier (see Note 19). A fixed, no-choice menu is followed by all the pupils in a definite sequence. The teacher sits at the head of the 'table' and the courses are brought out at the same time for each child.

38. Although Mrs Robertson has spent a great deal of time in preparing this writing activity, not everything goes to plan. Nevertheless, this outcome is not entirely unexpected. Each time she has previously introduced this topic it has produced new and unforeseen difficulties. Mrs Robertson is quite prepared, therefore, for the widely different degrees of competence shown by the children. However, to bring the activity to a relatively tidy conclusion, Mrs Robertson deliberately chooses a follow-up activity which retains the whole-class form of organisation (see Note 14) but which, by contrast, is relatively simple and easily completed.

39. During this episode (which lasts less than twenty-five minutes) Mrs Robertson moves the whole class through four different positions (home base, in front of blackboard, seated at tables, in front of drawer units). She makes the maximum use of available space but, most of the time, keeps the children very close to her. Again this had implications for the monitoring and control of individual children. By her close proximity to the children, Mrs Robertson can see and hear much more than in a dispersed situation. For the same reasons, her own behaviour is much more visible to the rest of the class. Furthermore, in this position she can use techniques (eg, touching children) which are inevitably (or conventionally) ruled out in a dispersed teaching situation.

40. Mrs Robertson's use of 'Hamish' to show the children where to start writing illustrates the strategy of building upon their sense of fantasy.

At 10 o'clock six children are asked to sit on the floor by the blackboard. The others are asked if they want to paint. Douglas asks Mrs Robertson what he might do; she gives him a shapes board. Mrs Robertson then moves the group of six to the window where they are given boxes of tokens and toys to sort out into different groups. They do this while she attends to the rest of the class. (10.12am) Mrs Robertson asks the sorting group, one by one, to count out the groups they have prepared (eg, three flowers, four peas, ... etc). She keeps a record of their achievements. (10.25am) Mrs Robertson announces that this will be the last time that the class take their milk all together. She explains that in future the children can take their milk whenever they wish. Michael asks 'What happens if we don't know when to go?'. When Michael has finished his milk Mrs Robertson talks to him about the grouping exercise. When he asks 'What is maths?' all of a sudden,someone else replies 'work'. After milk the class are assembled in front of the blackboard and then introduced to 'Dick' - a cardboard figure stuck to a magnetic board. Mrs Robertson writes 'Dick' on the blackboard and asks the children what it says. She then tries 'dock' and 'dish' .... While the class are putting on their coats to go out to playtime, Michael bursts into tears: 'I want mummy' .... (11.50am) 'Stop and listen' (twice). Mrs Robertson asks the class to try and work more quietly .... David, James and John re-enact a minor war with the wood blocks. (12.00) Mrs Robertson goes round the class area asking the children to go into the home base. When the children are ready she takes them round the class area pointing out where the class rules have been ignored - library, telephone table, games table, and class chairs.

Commentary (cont'd)

41. The teaching groups that are formed to sort out the counters have no other purpose and are disbanded immediately afterwards. Nevertheless, they represent the emergence of specialist group activities organised around tasks deliberately set by the teacher. The importance of this activity is underlined by the fact that Mrs Robertson keeps a written record of the results.

42. Day five is the last occasion when the children take their milk all together as a class. As far as milk consumption is concerned, the 'dinner party' is over. On subsequent days the children follow a self-service system and take their milk whenever they wish. The patterns of class organisation that Mrs Robertson uses at milk time tend to run ahead of those used for other activities. Thus, the whole class consumption of

milk is abandoned at a time when such patterns are just being introduced for other activities.

43. Although the children have already begun to learn the basic skills of writing, this is the first occasion when they are required to recognise word shapes (a prerequisite for reading). Furthermore, this is the first time that Mrs Robertson has written on the blackboard; a cogent reminder that it is a literate medium.

44. When Michael bursts into tears at playtime he has misunderstood the nature of the occasion. The fact that the other children were putting on their coats reminds him of home time. He has not fully learned the routine of the school day.

45. Of the nine days' observation this proved to be the most tearful. Six children cried at some time during the day (Monday). Mrs Robertson had predicted this state of affairs and attributed it to the fact that the weekend had given the children the opportunity to forget about school. In this sense some of the children had to re-start school - but in the somewhat different context of a much larger group, and a much more crowded class area. In a more general sense Mrs Robertson felt that these events marked the start of term 'crisis' - a turning point in the first few days of every school year.

46. Mrs Robertson's double call for the children to 'Stop and listen' and her subsequent reiteration of the classroom rules is one indication of the fragile stability of classroom life. Although at any given time the overall atmosphere may appear to be stable it is, in fact, more accurate to characterise it as a state of continual oscillation: at times the children set the pace, at other times it is the teacher who takes the initiative. On this occasion Mrs Robertson feels that the children are moving too far ahead of her. To restore the balance, she decides to remind them of the core rules that govern the use of furniture and equipment.

DAY SIX

(9.26am) After telling Mrs Robertson their news the children listen to a story in silence. Shortly after 9.30am the children are asked to fetch their writing books from their trays and find a seat. While Mrs Robertson walks round the class checking that the children have the right book, Keith, Michael and Rona discuss the significance of the numbers at the top of their books. Mrs Robertson asks the class to turn to page two. Several children turn the book over completely. When the class are quiet Mrs Robertson asks them 'What is the first thing to do?' ('Look for Hamish'). On this occasion the left-handed group no longer sit together. When the children are left to finish the tracing exercise Julie starts one of the lines with the crayon in her right hand and finishes it left-handed. As a second number group is being convened by Mrs Robertson, Ewan asks if he can go to the sand. He is told that he can choose for himself .... When the number group breaks up Emily tells them that 'We've had our milk' ...

Commentary (cont'd)

47. Although this is the second occasion that the children have used their writing books, they still find difficulty in making sense of them. (Indeed, when the children eventually come to the end of the eight-page books Mrs Robertson decides to prepare another version to repeat the earlier practice.)

48. Now that Mrs Robertson has observed the left-handed children in a writing situation she no longer requires them to sit together (see Note 26).

49. Gradually the children learn the appropriate strategies to follow in the class area. At the same time they also learn the specialised words that are used to describe the strategies (eg, 'choosing').

DAY NINE

Over and above the regular choosing activities the children complete the last page of the writing book. Emily complains that she hasn't got a page eight (she has) and David writes on the wrong page .... A final sorting group is convened .... At 10.20am Mrs Robertson rehearses the number work that she has introduced on previous days. 'How do we make a one?'. The children chant 'down' and make an imaginary stroke in the air. She then brings out a set of cards

featuring the number 'two'. When the children have answered her questions (eg, 'How many boots are there? How many eyes has the cat?'), she makes them practice the shape in the air. Before letting the children find a seat to work at Mrs Robertson distributes the number books by holding them up and waiting to see if the children can recognise their own names. The number books are very similar to the writing books. They are home made by the teacher and comprise spirit-duplicated sheets stapled together by the auxiliary. The children trace out the number shapes page by page and also use their crayons to colour the diagrams that go with them. This activity continues after playtime .... After a further period of choosing the children gather again in the home base. Mrs Robertson continues to tell them about the seasonal events of autumn (eg, fruits and seeds). While the children are still in the home base, she introduces them to 'Fluff' (the cat owned by Dick and Dora). She then sits by the magnetic board and 'plays a game' with the children by matching (and mismatching) the words against the pictures (Dick, Dora, Nip (the dog), and Fluff). The children correct her when she makes a mistake. Andrew asks if they will be 'getting Dick and Dora books'. When Mrs Robertson sends the class to fetch the colouring books from their trays there is a period of confusion since not all the children find the correct book (ie, the one with their name on it). The children are asked to colour in one picture of Fluff and one of Nip. There is some difficulty because there are not enough black and brown crayons to go round all the children. (12.15) Some of the children have finished so Mrs Robertson asks them to take their schoolbags to their seats. Colin complains that James is sitting in his seat. Mrs Robertson explains that he doesn't have his own seat. He finds another but wanders out of it. Morag takes it. Colin returns to say to Morag: 'I was there first'. Mrs Robertson helps Morag to find a new seat ....

Commentary (cont'd)

50. The fact that the number activity spreads over playtime is the first occasion that Mrs Robertson has allowed this to occur. Previously all class activities have been drawn to a conclusion before the children go out to play.

51. Three different kinds of classroom procedures co-exist at this time: individual choosing, specialist groups and whole class teaching. As shown earlier (see Note 42) these procedures are not insulated from each other. At different times they will be applied to the same part of the curriculum. For instance, children may learn to write as a class but later

receive instruction in groups or even individually as an optional 'choosing' activity.

52. The confusion that emerges when the children fetch the colouring books from their trays arises from the fact that it is the first time that they have been asked, as a class, to fetch anything from their trays. Previously, Mrs Robertson gave the books out individually to each child.

53. The episode when there were not enough grey and brown crayons for all the children to use them, is a specific but rare instance where the teaching strategy used by Mrs Robertson runs up against a (relative) shortage of resources. The most visible outcome in this type of situation is that the children are forced to wait their turn. In most instances Mrs Robertson pre-empts this type of queuing by forethought and suitable planning. Furthermore, if it does arise she is usually able to prevent it reaching disruptive proportions by the redirection of children or resources.

54. The seating policy followed by Mrs Robertson is that each child can sit wherever they wish. (The only time this convention is breached is when she asks individual children to sit on their own - usually because they have been interfering with someone else's work.) Thus, each child may use several work places during the day. In these terms it is an exceptional occurrence for Colin to complain that his seat has been taken. What in fact has happened was that his temporary seat reservation (marked by his schoolbag on the table) was, inadvertently, double-booked by another child. Colin's general behaviour suggests that perhaps his nursery school was organised around the idea that every child has their own chair. Thus, before he can learn the new regime he must unlearn the old one (see Note 4).

DAY TEN

(09.37) While Mrs Robertson gives out a set of new (home-made) books, Julie puts a tin of crayons on each table .... The front page of the books has drawings of Dick, Dora, Nip and Fluff with their names on the right-hand side of the page but not directly opposite the drawing. The children are shown how to draw a line between the picture and the correct word .... Mrs Robertson calls out the names of the children who are to join her when they have finished their matching books: the remainder are left to choose .... Some children can't find the right colour crayon to colour Dick etc. Mrs Robertson stops the class, asks them to put their crayons back in the tins and then impresses upon them that they are to work quietly .... (10.00am) Ewan finishes, puts his book in the base to be marked and then goes to find the telephone (which Mrs Robertson has deliberately removed from the class area). Laura asks 'What do we choose?'. At Colin's suggestion they both go to the milk table and drink their milk. Some children have forgotten whether they are to choose or to wait for Mrs Robertson. Laura is wandering about; Mrs Robertson takes her to the painting area but finds she doesn't want to paint. Mrs Robertson looks for Mrs Lee (the auxiliary) as some of the paints are missing. Meanwhile the special group have assembled near the blackboard. (10.08am) After an initial briefing, the group return to their tables. Mrs Robertson holds up shapes (a circle, a square, etc) which they copy on to individual sheets of paper divided into four quarters.

Commentary (cont'd)

55. The word and picture matching exercise did not emerge unheralded; it had already been foreshadowed by the home base activity of the previous day.

56. In several respects, this thirty minute episode of classroom life did not develop as Mrs Robertson had hoped. For instance, many children forget the detailed instructions about what they were to do after the matching exercise. As a result the children sought guidance from each other or from Mrs Robertson. Inevitably, the noise level increases. (Much later in the year Mrs Robertson avoids this type of problem by writing the work instructions on the blackboard.) Similarly, Laura's (unanswerable) question: 'What do we choose?' indicates that not only was she unsure of the available options but also (as shown by her behaviour in the painting area) that she was unattracted by some of those that were most visible.

57. The shortage of paints draws attention to the role of the school auxiliaries (three are shared among fifteen classes). Like many of the support services in education their importance only becomes apparent when the system fails to function. In practice Mrs Lee carries out many of the organisational and planning tasks that would otherwise fall to Mrs Robertson. In effect, she underwrites many of the processes that are intrinsic to the type of teaching methods used by Mrs Robertson. (During the rest of the term the children gradually learn to distinguish Mrs Robertson from Mrs Lee and, at the same time, gradually learn to go directly to her when they need the assistance which she can provide. Through Mrs Lee's help Mrs Robertson can focus more continuously on working with individual children.)

DAY TWELVE

(09.36) The class sit around the board which has 'Here is' written on it. Mrs Robertson completes the sentence by adding Dick etc. The children read out the full sentence. They are then introduced to a new word: 'Mummy'. Mrs Robertson draws a series of balloons on the board. She asks individual children to read the words written in the balloons. If they can, they are asked to 'blow the balloons away' (ie, they are rubbed out).... (09.45) Mrs Robertson introduces the children to the word 'assignment'. She takes a pile of 'everyday' books and shows the children that 'You've all got different things to do' (the tasks are already written into the books by Mrs Robertson). Rona asks to go to the toilet. The class are told that when they've finished their everyday books they are to put them on the pile and then 'choose'. (09.58) While the rest of the class work at the tables, Keith, Julie and Michael have a session with Mrs Robertson and their matchbox words (individual words written on small pieces of card that the children keep in a matchbox and take home to their parents).

Commentary (cont'd)

58. The introduction of the assignment (a daily work schedule) marks another shift in the kind of teaching used by Mrs Robertson. The children are being introduced to the individualised (or better still, personalised) curriculum which will gradually displace, but not entirely replace, the smorgasbord

and dinner party curricula introduced earlier. In effect, the children begin to follow specially prepared individual diets which complement the more staple fare offered by the accessible smorgasbord and the formal dinner party.

59. The reading words not only mark the introduction of homework but also provides the children with a visible school-based criterion for differentiating among themselves (eg, 'How many words have you got?'). Although Mrs Robertson tries to avoid this outcome by giving each child four pieces of card (some with repeat words), the children soon discover their relative levels of progress. Later, this differentiation becomes even more visible when the children move on to their first reading book. Thus, the children not only begin to read but also begin to cope with a set of more pervasive school-based ideas about success and failure, cooperation and competition, work and play.

> (The schoolday continues.) Morag comes out to Mrs Robertson as she cannot find the place in her everyday book. Emily is reminded that if she does not know what to do, she is not to call out but, instead, sit and wait besides Mrs Robertson. Michael has difficulty in distinguishing 'Dick' from 'Dora' (his new word). Shortly afterwards he is sent to call up Simon but the message does not arrive. Children start going out to Mrs Robertson. The register boy arrives. (10.03am) Colin is chastised for interrupting Mrs Robertson. Eight children are still working in their everyday books. David has started writing on a random page in his book but is redirected to the correct page. Morag takes her book for Mrs Robertson's inspection but is told 'You don't really need to bring it to me .... put it on the pile'. Christina and William are hovering around outside Mrs Lee's room - waiting for paint. Mrs Robertson gets up and goes to find out their difficulty. She takes Lucy and Stephen to the sandpit. (Stephen had been on his own but had found the door locked.) Back at the blackboard Mrs Robertson listens to Andrew and Rona read. Simon asks to go to the toilet. Stephen complains that Keith has interrupted his work with the bricks .... At 10.20am the class are engaged on the following activities: building with woodblocks (6), milk (1), painting (3), jigsaw puzzles (2), unifix blocks (4), drawing (3), reading (1), observing (2) ...

Commentary (cont'd)

60. This final extract from the fieldnotes is deliberately left unabridged. It is included to underline the fact that although Mrs Robertson's teaching is individualised, she also has responsibility for up to twenty-two other children at the same time. Thus, before she can develop person-to-person teaching she must also design activities for the rest of the class. In this sense her overall unit of organisation still remains the class rather than the individual child.

DISCUSSION

In certain respects the practice of teaching is like the art of cooking. It involves the transformation of a set of ingredients (the syllabus) into a finished product (the daily work programme) by means of a set of procedures (the teaching methods). Yet teaching is rather more than the application of recipe knowledge. Competence is not unequivocably guaranteed by the terms of the cookbook. Other background skills are also relevant.

The final section of this essay focuses on this aspect of teaching. That is, it considers some of the 'intangibles' (here described as preparation, experience, continuity, vision and responsiveness) which might help to differentiate the work of a competent teacher from that of a trainee.

Preparation

One central if not paradoxical feature of Mrs Robertson's work is that much of it takes place when the children are not at school. In short, the form and content of her classroom activities are only made possible by a considerable amount of off-stage preparation.

This preparation takes different forms. Its most visible aspect relates to the day-by-day maintenance of the work programme. This type of preparation encompasses taken for granted activities such as the marking of books or the repair and replacement of disposeable or damaged equipment. Less

frequently - but perhaps more significantly - Mrs Robertson's preparation is also directed towards a qualitative change in the day-to-day routine. This second kind of preparation is reflected in the rearrangement of furniture, the introduction of novel materials (eg, TV broadcasts) or in the rehearsal of new techniques (eg, the dinner party curriculum). A third type of preparation probably occurs least often but requires the greatest amount of intellectual investment. It relates to the development of classroom activities which are as new to the teacher as they are to the children. In such an instance the teacher has chosen to branch out into relatively ill-defined and risk-laden territory.

The difference between these types of preparation is not so much in the activities themselves as in the degree of experience brought to them by the teacher. Student teachers, for example, may find an element of risk in all their preparatory activities whereas unadventurous teachers might never stray beyond the well-defined boundaries of their own experience.

Experience

An important adjunct to preparation is the existence of prior experience. Mrs Robertson's teaching, for example, is not merely the outcome of her more immediate preparation but also the result of her initial training, her five years' experience in the same school, and her regular attendance on in-service courses.

In general, however, experience is not something that automatically accumulates with the passage of time. Changed circumstances can always neutralise the rehearsal value of earlier experience. Whenever Mrs Robertson decides to try out new strategies or whenever her teaching is interrupted by outside events, she puts the value of her previous experience to the test. Sometimes she is able to keep the resultant activities within the realms of her existing knowledge; at other times she is forced to move out into unknown territory. Thus, to the extent that it changes or is induced to change, Mrs Robertson's teaching always contains an element of inexperience.

Nevertheless, the advantages of appropriate experience cannot be ignored. In Mrs Robertson's case, there are three distinct benefits which accrue to her from previous years. First, she has already fully rehearsed many of the actions that she undertakes day by day. As a result her teaching operates within a set of carefully understood limitations and therefore takes careful account of the availability and accessibility of resources. Second, Mrs Robertson's varied experience gives her a wide repertoire of options to draw upon. Thus, if her plans go awry she can readily switch to another well-tried activity. Finally, Mrs Robertson's experience also gives her a better idea of the consequences of her actions; she can weigh each alternative in the light of its likely outcomes.

Continuity

This potential ability to foresee the results of her decisions introduces a strong thread of continuity into Mrs Robertson's teaching. She realises that each decision may create new situations which require further decisions. To this extent, teaching is not about making 'one-off' decisions but making chains of decisions.

The fact that one decision merely leads to another also relates to a teacher's sense of achievement. Even if Mrs Robertson reaches her immediate goal she knows that there are still other peaks to climb. Likewise she realises that each success may be only shortlived. In this sense a teacher's work is never done. Necessarily, achievement becomes a much more fluid entity. It is not so much the attainment of isolated curriculum objectives as the overall maintenance of continuity, coherence and progress.

Vision

Although a set of specific activities are central to Mrs Robertson's day to day work programme, they are really only a part of a much larger set of more diffuse and long-term goals. These more distant goals - relating to the general social, intellectual and emotional development of her pupils - are more difficult to specify but are of equal importance to the entire process. Without them, the former activities would be

meaningless (eg, word recognition is not an end in itself but a means to a more elaborate end). In these terms competent teachers are marked out not so much by their detailed knowledge of separate curricular milestones but by their understanding of the relationship between these and the more long-term goals. The possession of this latter skill - demonstrated by an over-riding sense of direction and purpose - makes it much easier for a teacher to overcome irritating holdups, negotiate awkward diversions and anticipate oncoming obstacles. Competence is a matter of perspective: the ability to visualise the entire forest, not just the individual trees.

Responsiveness

Armed with this understanding a competent teacher can more readily respond to interruptions and diversions. Such unintended consequences need not be treated as failures; they can be re-interpreted as potential growth points. The wisdom of experience and preparation (as demonstrated, for instance, by a teacher's sense of timing) can transform unexpected outcomes into new sources of innovation and change.

Here, as elsewhere in this essay, it is the 'intangibles' of teaching which serve to differentiate education from mere training.

Sources

For other accounts which reflect a comparable interest in the processes of teaching and learning see:

Jackson, P W (1968), *Life in Classrooms*, New York: Holt Rinehart & Winston.

Smith, L M & Geoffrey, W (1968), *The Complexities of an Urban Classroom*, New York: Holt Rinehart & Winston.

Walker, R & Adelman, C (1975), *A Guide to Classroom Observation*, London: Methuen.

The quotation in this essay comes from:

Silberman, C (1971), *Crisis in the Classroom (The Remaking of American Education)*, New York: Vintage Books, pp224-5.

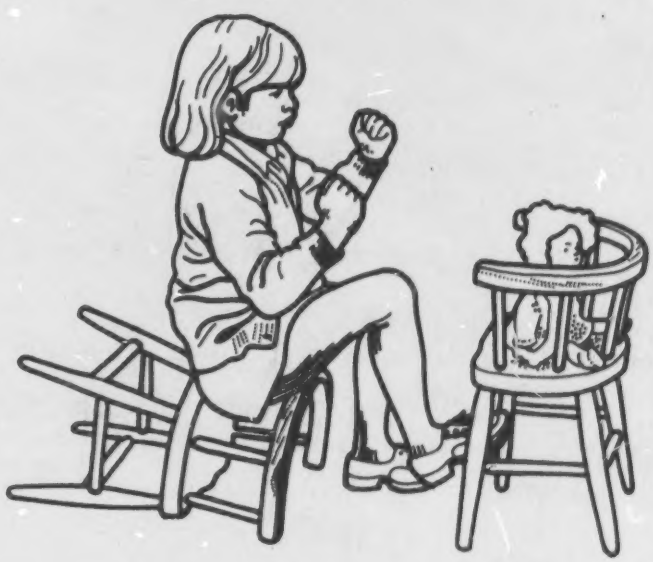
THE CASE OF THE MISSING CHAIRS

> 'The structures of the open classroom ... are designed to meet needs that the structures of the conventional classroom cannot fulfil. But prescriptions for structure alone do not tell us how the *work* of the classroom ... can be performed.'
>
> (Ian Westbury, *Educationalist*)

This essay is about the relationship between teaching methods and material resources. It focuses on the recent suggestion that a modern primary school can be organised around less than one chair per pupil. Overall, the essay does not find fault with the motives that prompted this suggestion. It does, however, find inconsistencies in its logic.

There is a school of thought in primary education which argues that there is no need to provide every child with a seat or a work surface. Support for this idea comes from various sources. New schools find the concept financially acceptable since it releases money from an otherwise fixed grant for the purchase of specialist furnishings such as display screens, storage units and mobile trolleys. Architects endorse the idea since the resultant increase in free space enables them to create more flexible designs. And finally, educationalists lend their weight to the scheme since it visibly undermines a long tradition of simultaneous class (ie, whole group) teaching.

The force of these economic, architectural and educational arguments has been considerable. According to one recent English review: 'new purpose-built open plan schools rarely contain seating accommodation for more than about seventy per cent of the children at any one time'. Not all practitioners, however, have found this innovation equally acceptable. Hence, like many other elements in the modern primary school, chairs and tables have become the object of prolonged and often emotive debate. Superficially, the arguments and counter-arguments are about the allocation of financial resources and the utilisation of available space. At a deeper level, however, they also interact with more fundamental concerns about the theory and practice of primary education. In short, discussions about tables and chairs are also debates about methods and curricula.



The first part of this essay explores the origins and assumptions of these debates. The second part relates their logic to the experience of the case study school. Throughout, two questions are considered:

1. What are the shifts in educational thinking that have given rise to these discussions?
2. How do these shifts relate to a reduced provision

The standard answer to these questions is that a lowered requirement of chairs follows automatically from a weaker emphasis upon class and jotter-based teaching. The experience of the case study school (and the argument of this essay) suggests that the case for this innovation is weak and inconclusive.

ORIGINS AND ASSUMPTIONS

Debates about educational furnishings and fittings have a long history. Typically, they reflect disagreements about the most appropriate furniture for a given teaching method or curriculum. In 1725 the master of St Andrew's Grammar School complained to the local council that, for lack of suitable writing surfaces, his pupils were obliged to 'wreatt upon the floor lying on their bellies'. At that time writing was considered a major (and somewhat suspect) curriculum innovation. Even by the early nineteenth century seats were still regarded as peripheral to curricula which emphasised reading rather than writing. For instance, one of the selling points of the monitorial system was that only fifty per cent of the pupils needed seats at any one time. (Each half of the class took it in turns to stand in groups and be 'drilled' by the pupil monitors while the other half sat on benches and practised their 'ciphering'.)

Further controversies arose with the development of text-book curricula in the late nineteenth century. It was argued that Scotland was deficient in school furniture. During that period not all schools provided suitable 'locker' desks for the storage of books and writing implements.

In turn, the heavy locker desks of the elementary school also fell out of favour. By the 1930s it was held that they were too cumbersome or ill-shapen for the 'activity' methods officially advocated as suitable for young children. Nevertheless, locker desks survived until well after the Second World War - though largely for economic rather than educational reasons.

In the 1950s, a rise in the birth rate triggered a new demand. School furnishings - like new school buildings - began to be designed with an explicit concern for compactness,

flexibility, and appropriateness of size. Standardised modules, interchangeable components and child-proof materials became key-note features. Showpiece schools of the 1960s like Eveline Lowe (London) and Kirkhill (West Lothian) deliberately incorporated these new developments as part of their total design. However, according to the official reports, the specification of chairs for these schools remained at the figure of one hundred per cent.

Chairs - A Vanishing Resource?

At some point in the late 1960s (or so it appears) the idea began to circulate that a primary school could be efficiently furnished with less than one hundred per cent seating. The source of this notion is as yet obscure. The fact that there are no references to it in either the Plowden Report (1967) or the Scottish Education Department 'Primary Memorandum' (1965) suggests that it may have been a grass-roots or even an imported (American?) idea.

The rationale for limiting the number of chairs in a school derives from three assumptions:

1. That the basic unit of teaching should be the individual child rather than the whole group.
2. That it is possible to organise work programmes whereby children can be employed on different activities.
3. That not all learning activities require a chair.

There are two problems with this rationale. First, none of these assumptions specifically requires that the provision of seats should be fixed at less than one hundred per cent. In fact, it would be possible for a teacher to accept all three ideas and still legitimately demand a full complement of chairs. This would follow, for example, if she added a fourth assumption: that children should be free to choose their own sequence through the various activities of their work programme. Indeed, if a teacher considered this last assumption to be the most important, then it would definitely rule out a reduced provision of chairs. The freedom of individual choice would, by necessity, include the freedom for every child to choose a seated activity. Thus, to restrict the number of chairs in a school is automatically to limit the number of curriculum

options open to teachers and pupils. Certainly, an increase of chairs may also produce a shortage of space; but this is not an equivalent problem. Space can be created more easily than extra seating.

The second problem surrounds the levels of seating that are usually considered as realistic (ie, sixty to seventy per cent). The derivation of these figures is as obscure as the origins of the initial idea. It is sometimes stated that a sixty-six per cent (ie, two-thirds) seating level fits easily where classes are subdivided into three groups. In such cases the expectation is that two thirds of the class group will need chairs whereas one third will be working at non-seated activities or out of the class area. On balance this explanation is inadequate. It does not justify the choice of three groups or indicate how a policy of grouping squares with the assumption that the individual child should be the basic teaching unit. (By the same token it would be just as reasonable to divide the class into four groups and have a seating level of seventy five (or even fifty) per cent.)

Given the educational weakness of the foregoing argument, an alternative source for the quoted figures is that they derive from the application of a standard architectural formula. By this means a school's optimum seating requirements are calculated in the same manner as the size of its playground and staffroom. Nevertheless these requirements cannot be predicted unambiguously. They also depend on the kind of educational policy followed by the school. An optimum figure in one situation may be totally inappropriate in another.

Accidental Dissemination?

The rather hybrid nature of these ideas about seating levels suggests that they may have come into being for no other purpose than to focus attention on out of date classroom procedures. That is, they were formulated primarily to draw attention to the shortcomings of educational practice, not as a model for changing it. There is a historical parallel for this explanation. The call for a reduced provision of seats in a school is analogous to the rallying cry of an earlier generation that locker desks should be unscrewed from the classroom floor.

If this last explanation is, in fact, correct, then the initial adoption of reduced seating levels may have been an accident - the reluctant or ill-informed act of a financially hardpressed adviser or administrator.

Whatever their origins, the rapid and widespread dissemination of these ideas is almost certainly attributable to the concerned pressure of administrators, college lecturers and architects; three of the most powerful groups in primary education. Although acting for different reasons - expediency, conviction or functional utility - their combined advocacy has been considerable.

THE CASE STUDY SCHOOL

In the early 1970s teachers from the case study school attended a local college of education for courses leading to the Froebel (early education) certificate. During those years, they first encountered the idea that a primary school class might be organised around less than one hundred per cent seating. At that time, however, the issue was of academic rather than practical concern, a matter for staffroom discussion rather than school-wide decision.

In 1973 the situation changed. The plans for the new lower primary building had reached the stage where a seating level had to be decided. Consensus among the staff was difficult to achieve since individual members reacted differently to the idea that seating levels might be reduced below one chair per child. Basically, three viewpoints were expressed. One (small) group of teachers were prepared to put their beliefs to the test and try out the idea. A second group (probably the majority) accepted the general notion of a reduced provision but felt that their own situation constituted a special case. (For example, one teacher argued that she preferred to teach writing by means of class lessons.) A third group of teachers were less easily converted. They felt reluctant to abandon either the principle or the practice of providing a full complement of seats for their children. A characteristic feature of this last group was that they felt it was educationally important that each child should have their 'own' chair.

To resolve this issue the headmaster of the school was asked to act as an arbitrator. By his decision the seating level was duly fixed at sixty per cent. In principle this action closed the debate. In practice, however, the teachers were left with a possible alternative: if the designated seating level proved inadequate, it could still be topped up with infant-sized furniture left over from the old buildings. The flexibility of this arrangement became apparent when some of the ordered furniture failed to arrive in time for the opening of the new building. The old tables and chairs were immediately pressed into service and, in a complete reversal of the original intention, were 'topped up' by the new furniture as it arrived. Eventually, a surplus of chairs was created - which meant that each teacher could operate their own seating policy. Some chose the figure of sixty per cent while others retained at least one chair for each child.

This arrangement did not last for very long. Within a term all the teachers had built up their seating levels to at least one hundred per cent. The topping up, however, did not herald a return to class teaching. Quite the reverse: as shown below it marked a recognition that an adequate supply of chairs was necessary to the individualised and balanced curriculum that the case study teachers were trying to implement. Thus, despite a certain sense of public failure among the teachers who tried to work with a reduced provision, the intervening experience had taught them a great deal about the relationship between teaching methods and seating requirements.

At Classroom Level

The teachers who found themselves unable to operate with a reduction in chairs reported the following experiences. In the first instance they all found it impossible to avoid times when their entire teaching group were sitting on chairs. Sometimes this arose through the teacher's own decision; at other times it arose through the actions of the children. Although the frequency of these occasions was rare and their duration short-lived, the teachers regarded them as an essential part of their work. In so far as these experiences served educational purposes that could not be achieved in any other way, the

teachers were unwilling to abandon them for the sake of a handful of chairs.

A second experience related to the use of chairs as a moveable resource. The teachers conceded that it might be possible to use less than one hundred per cent chairs for much of the school day but had found that this usually required a certain proportion of chairs to be moved constantly from place to place. This occurred, for example, when a group of children wanted to set up a 'school' in the 'shop', or a 'hairdressing salon' in the home base. The teachers not only felt that the movement of chairs created avoidable disruption but also that the associated shortage of chairs inhibited their pupil's choice of activity.

A third observation (made by the teachers of younger children) was that a limited supply of chairs could interfere with the educational principle that certain well-used areas or activities (eg, milk, sewing, reading) should have a fixed allocation of chairs. The justification for this policy was that the presence of chairs could help children to perform activities that might otherwise be too difficult. It was also argued in favour of such a policy that it helped to prevent certain practical problems (eg, spillage of milk, loss of sewing needles, damage of books). In these instances the combined weight of the educational and administrative advantages was sufficient to convince the teachers of the need for extra chairs.

Finally, all the teachers reported that they were unwilling to allow children to write while standing at a work surface or lying on the floor. The notion that children should be allowed to write in these positions has been one of the outcomes of the chairs debate. Without exception, the case study teachers reacted unfavourably to the idea. Like the erst-while master of St Andrew's Grammar School, they felt that children who are learning to write should be encouraged to use a suitable surface and a comfortable chair.

Conclusion

This essay examines a rather curious discrepancy between theory and practice. It focuses on a school of thought which

holds that a modern primary school can be adequately equipped with less than one chair per child. Overall, it questions the practice whereby chairs are shared rather than a guaranteed resource. In effect, this means that chairs are downgraded to the same status as painting easils, water tanks and sand trays. As a result, special rules are needed to regulate the pupils' access to them. In turn, these rules have an impact on the type of methods and curricula which can be used by teachers.

It may be expedient to improve the provision of the painting easils at the expense of chairs. But, in the process, there is surely no need to make an educational virtue out of an economic necessity.

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Sources

The initial quotation in this essay is taken from K Rintoul & K Thorne Open Plan Organisation in the Primary School, London: Ward Lock Educational, 1975, p11. Generally, however, there is very little written on the subject. Thus most of the information in this essay comes from discussions with the case study teachers and other researchers, and from material provided by a furniture consultant, and an architect.

The rationale for using 66% chairs with classes of three groups can be found in G M Werner Policies of School Building Design, M Soc Sci thesis, University of Edinburgh, 1974.

The nineteenth century examples are taken from J Grant History of the Burgh and Parish Schools of Scotland (Vol 1), London: Collins, 1876, pp515 & 521. And a reference to the symbolic significance of unscrewing desks from the classroom floor can be found in R J W Selleck English Primary Education and the Progressives, 1914-1939, London: Routledge & Kegan Paul, 1972, p51.

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5th February 1976.

ALL WORK AND NO PLAY?

> 'Learning experiences, in so far as they are a school responsibility are structured... They a e arranged according to more or less definite views about learning processes, about general human development, about the expectations of various groups external to the school, and about what is feasible and desirable in an institutional setting where many constraints limit the realisation of the values to which educators aspire'.
>
> (Malcolm Skilbeck, *Educationalist)*

The labels 'work' and 'play' are commonly used to differentiate the various activities of the primary school day. This essay highlights the changing use of these terms by analysing the views of a small group of teachers who wanted to abolish such a distinction. Overall, it suggests that debates about work and play are not so much about differentiating the curriculum as about changing it.

One of the basic distinctions in parimary education is between 'work' and 'play'. The former has connotations of intellectual growth, industry and public achievement whereas the latter usually expresses ideas about social development, recreation and personal fulfilment. In turn, work is sometimes considered central to the primary school curriculum whereas play is treated as a more marginal activity, optional rather than essential.

This distinction between work and play is prominent in many contemporary discussions about early education. Basically,

there are two (longstanding) schools of thought. One view - sometimes associated with the name of Friedrich Froebel - is that the early school curriculum should provide for and build upon the spontaneous play of young children. The alternative position - sometimes associated with the name of Maria Montessori is that the early school curriculum should, from the outset, be organised around a much more interventionist type of teaching. At the risk of over-simplification, the Froebelian view is that work is a special kind of play whereas the Montessorian position is that play is a special kind of work.

In recent years the increase of pre-schooling has given these debates a new lease of life. Thus, play groups reflect the Froebelian view whereas nursery schools tend to embody the ideas of Montessori. The distinction between work and play can also be used to characterise the difference between pre-schooling and primary schooling. The former emphasises the educational value of play, the latter stresses the importance of work.

These views about work and play were also reproduced among the teachers in the case study school. In particular, a small group - the starting point of this essay - took up an extreme position and argued against any kind of work/play distinction. For instance, during the course of an interview one teacher prefaced certain remarks by: 'When I say water play, I mean water work'. On a different occasion another teacher argued that all references to 'play' in a description of her teaching should, in the final version, be replaced with the word 'work'. In short, this group of teachers aimed to overcome the arbitrary nature of the work/play distinction by labelling all activities as 'work', irrespective of their content or purpose.

At first glance this issue appears to be a personal matter. If a teacher decides to regard certain activities as work rather than play then (or so it seems) her action need be of little concern to other people. However, in certain respects this relabelling activity had a much wider impact. To remain true to their beliefs, the work-not-play teachers also tried to modify their classroom language. For example, children would be asked if they wished to 'work' in the painting area or in the 'house'. This public demonstration by the work-not-play teachers inevitably brought their views to the notice of other teachers, pupils and parents. In this way the work-not-play debate became a social rather than a personal issue. And, as described below, it created all kinds of new problems.

ATTITUDES AND PRACTICES

Beliefs about work and play are not only expressed verbally during informal discussions and staff meetings but also actively in the day to day organisation of teaching. Basically, the work-not-play teachers tried to implement two related assumptions:

1. That the same degree of seriousness should be accorded every aspect of the school day.
2. That every school activity should be regarded as contributing to a child's education in some way or another.

In practice the first assumption was particularly difficult to demonstrate. For instance, to treat every activity with equal

seriousness does not necessarily mean that each one should receive the same amount of a teacher's (or pupil's) attention. Neither does it necessarily mean that all activities should receive the same priority.

The second viewpoint was expressed more visibly. This occurred when teachers combined 'work' and 'play' activities or when they gave greater priority to activities that conventionally take place later in the day (ie, after work). For example, some teachers included 'milk' as part of their pupil's daily work schedules. Similarly, other teachers encouraged their children to use the 'wet' (ie, play) area, before they started their 'dry' (ie, work) activities; or read to their pupils in the middle of the day rather than at the end. The second assumption was also demonstrated by the way some teachers devoted more time to optional or extra activities. That is, they made more conscious use of the music room, library and courtyards and set fewer jotter-based tasks for their pupils' homework.

To this limited extent the work-not-play teachers were able to reorganise their teaching around a weakened distinction between work and play. In other respects, however, they were less successful. One minor problem was that the teachers often found it linguistically clumsy to replace 'play' by 'work'. Games, for example, are still conventionally 'played' nor 'worked'. Likewise, 'play' is still the most acceptable antonym for 'work'. (If a child is not working, what are they doing?)

A more deep-rooted and delicate source of difficulty for the teachers related to the contrasting views about work and play expressed by their pupils. By the time children start at school most of them already have well-established ideas about these activities (eg, sandpits are for play, books are for work). Thus, by abandoning the notion of 'play', the case study teachers were quite aware that their own behaviour might conflict with their pupils' expectations. Worse still, they realised that their actions might be interpreted as a deliberate attempt to neutralise the values which the pupils had learned at home and elsewhere. Thus, albeit unwittingly, the teacher's efforts to dissolve the boundaries between work and play were a potential source of confusion at school and conflict within the home.

Despite these practical and ethical problems, the work-not-play teachers were reluctant to abandon their viewpoint. To a variable degree, they continued to use 'work' instead of 'play' in their discussions with the children. Overall, however, they accepted that the counteracting strength of outside opinion was, at least in the short term, probably far greater than their own.

THE VIEWS OF THE PUPILS

During the course of the research an attempt was made to put these ideas in context by looking more closely at the views of the pupils. A random sample of five children from each of the five classes in primary one, two and three (ie, a total of seventy five children), were asked six questions about their school activities:

1. Where do you have your milk?
2. When do you have your milk?
3. What sort of things do you do in the courtyard?
4. What do you do when you've finished your assignment?
5. When do you usually paint?
6. Who usually decides what you paint?

The expectancy - based on earlier observation and discussion - was that the responses of the older children would reflect a strengthening rather than a weakening of the work/play distinction and that, in part, this would result from a gradual differentiation of space and time into areas and units of work and play. For instance, it was anticipated that a higher proportion of primary three children would:

a. Drink their milk outside the class (ie, work) area.
b. Take milk at break (ie, play time) rather than at other times of the day.
c. Work inside the building rather than outside in the courtyards.

Although the interviews showed considerable variation from class to class, the overall expectation was sustained. The responses were as follows:

	Primary One	*Primary Three*
Children who reported drinking their milk outside the class areas	0%	100%
Children who used the words 'break' or 'playtime' to describe their milk time	8%	43%
Children who reported that they had not been out into the courtyards during the autumn term	38%	64%

A related observation had been that a greater part of the primary three day was devoted to activities deemed to be 'work'. To this extent 'work' began to predominate over 'play' which, in turn, became relegated to the status of an out-of-school activity. The interviews reinforced this observation. When asked "What do you do when you've finished your assignment/ jobs?", the replies from primary one more frequently contained the word 'play' than those from primary three children (39% as against 22%).

Instead, the primary three children usually referred to other curriculum activities. For example, forty per cent of their replies contained the words 'painting' and/or 'drawing' (compared with four per cent of the replies in primary one). At first glance painting and drawing - especially if they are optional and pupil-directed - might seem to be synonymous with play. However, in the case study school this did not appear to be true. By the time the children had reached primary three, craft work began to fill a specific slot in the day and in most cases was organised around topics outlined by the class teacher. Again, these overall differences between primary one and three were reflected in the way the children answered the questions about when they painted and who decided what they should paint. For example, more primary three children reported that they did painting at a special time or after their 'work':

When do you usually paint?

	Primary One	*Primary Three*
Special time (eg, 'after lunch')	16%	20%
Any time	20%	4%
After 'work'	20%	48%
(none of these)	44%	28%
	(100%)	(100%)

Similarly, more primary three children reported that their teacher decided what they should paint:

Who usually decides what you paint?

	Primary One	*Primary Two*	*Primary Three*
Me	56%	24%	32%
The teacher	12%	16%	44%
Both (me or the teacher)	4%	40%	16%
(none of these)	28%	20%	8%
	(100%)	(100%)	(100%)

These separate references to the activity of painting suggest that at some intervening stage between primary one and primary three it shifts across the school curriculum from being a play activity to being a work activity. The interviews provide further support for this idea. In so far as the largest group of primary two children gave both 'Me' and the 'teacher' as the source of decisions about painting, their replies come somewhere between the contrasting patterns of primary one and primary three.

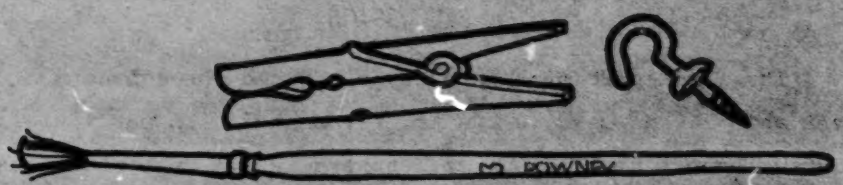
DISCUSSION

The first part of this essay discusses the concepts of work and play as used in the primary school. In particular, it focuses upon a small group of teachers in the case study school who sought to abolish the work/play distinction. In many respects this work-not-play group were the leading edge of a more general trend within the school (and, possibly, in primary education). However, what made them particularly conspicuous was not so much their classroom practice as their classroom language.

The second part of this essay considers the concepts of work and play from the point of view of the pupils in the case study school. Contrary to the (short-term) hopes of work-not-play teachers, it suggests that there was a hardening of the distinction between work and play over the age range from primary one to primary three. Although the school day was increasingly dominated by activities labelled as 'work', this does not arise from the breaking down of barriers as from the gradually withering away of those activities which, lower down the school, were conventionally defined as play. In the case study instance some of the earlier activities (eg, painting) were incorporated into the working day whereas others (eg, use of the courtyards) progressively disappeared from the curriculum. The fact that the primary three day was more work-oriented than the primary one day reflected a change in the curriculum, not a change in the labelling practices used by the teachers.

In this sense, debates about work and play are not only about a search for a suitable terminology but also about a search for a suitable curriculum.

5th February 1976.



EPISODES OF SCHOOL LIFE

'This open-plan school is more structured than I imagined'

(Parent)

This essay is primarily informative. Three descriptive snap-shots - one from each of the first three years - try to capture the complexity and continuity of life in a modern primary school.

A DAY IN THE LIFE OF A PUPIL

Ian Rae has spent almost a year at school and is approaching his 6th birthday. Compared with the other boys in his class he is slightly smaller in body weight and height. His most obvious identifying features are a round freckled face and light ginger hair. On the day in question (13th May 1975) he got up soon after 7am, put on his school uniform and tidied his room. While Mr Rae took his younger brother to spend the day with Granny, Ian polished off the breakfast prepared by his mother. At/

At 8.20 Morag and her father arrived in their car to take Ian to school. En route they collected Mary who is also in Ian's class.

08.50 By the time Ian enters the school playground most of the 24 children in his class have already hung up their coats and emptied their school bags into the drawers that serve in place of desks. Ian comes straight into the learning area but before he takes off his jacket is attracted by Peter's red-uniformed 'action man'. Returns to lobby to hang up coat. Unpacks his briefcase. Rejoins Peter to talk about the action man.

08.58 Without prompting Ian is the first to line up for assembly. Holds the door open for the remainder of the class to file through. Brings up the rear as they enter the hall.

09.11 After a short biblical story, two prayers and a hymn, the children return to their class base. As usual they sit on the floor around Miss Dean's chair. She asks them for their 'news'. Although Ian is at the front and puts his hand up immediately, he has to wait while Miss Dean gives other children the opportunity to speak. Eventually Ian is given his chance. "I was out in the garden. I thought it would be awfully long while I waited for mummy. We went shopping. Some for mummy, some for me (pause) and we left some for daddy." For the rest of the time he sat silently except when drawn into Alan's news ("Ian, you know where I live...").

09.28 Miss Dean reminds the children not to forget their milk and then gives out two sets of jotters and the newly-marked workbooks.

09.30 Ian takes his books and sits near the blackboard at a small table with Maurice, Iris and Janet. As a class exercise Miss Dean dictates a set of words which the children write in their 'sounds' jotter. ("Wish..... I made a wish.", dish, crash, splash, rash, shelf, sheets, ships, shells, shops.)

09.33/

09.33 Before leaving the class to work on their own, Miss Dean indicates the layout to be used in the sums book, and rehearses the individual work on sounds. ("What is a match?....What is a chimp?....What does this word say?") The blackboard already displays the programme of work ('(1) sums (2) sounds (3) workbook (4) choosing') and, to one side, indicates the supplementary material for certain of the tasks. The children can complete the work programme in any order they wish.

09.44 Ian gets up, goes over to his drawer and puts his workbook away. Then, apparently changing his mind, puts the sounds book away and retrieves his workbook. (The workbook contains printed exercises which require the children to fill in words - in this case 'eye', 'ear' and 'nose' - and then use them in a variety of contexts. Each child is expected to do at least one page.) Ian makes a mistake (writes 'nose' on a diagram of the face instead of 'ear'). Fetches rubber from side table and makes the correction. Puts 'nose' in the box for 'ear'. Fetches rubber again.

09.51 Reads sentences aloud sounding out the key word: "This one has no e..a..r..s./ This one has one eye./ This one has no nose." Delves into the two tins of coloured pencils on the table to colour in the face.

10.00 Has reached second page of workbook. Mild dispute breaks out between Maurice and Iris as to which coloured pencils they should be using. Ian seems oblivious to this discussion but eventually breaks in to tell them "You two use these pencils, and we'll use these".

10.02 Ian won't let Iris use his six inch ruler. Iris asks again. Ian refuses but adds a reason: "It's a new one". (The children are free to use the class rulers which are kept along with the rubbers.)

10.05 Ian turns to a new page in his workbook but decides not to continue. Puts ruler in his leather pencil case and places his chair neatly under the table. Shows his workbook/

workbook to Miss Dean before putting it on the pile for marking. Returns pencil case to drawer. Goes over to Peter and Moira who are playing on the floor with wooden blocks and the action man. Ian seems more attracted by the latter, especially when Peter indicates that it can talk.

10.14 Ian retains the action man while the other two build a fortress out of the blocks. He tells them to "sshh" when they make a noise turning over the blocks in the storage tray.

10.18 Miss Dean joins the trio to talk about the action man and the fortress. Before leaving the group she announces break to the whole class by reminding them to be ready to come back early for P.E.

10.20 (Morning break.) Ian spends most of the time chasing about the playground with 4 classmates. Occasionally gets a little perturbed when they become over-boisterous.

10.43 Class line up at the edge of the playground while the remaining 250 children continue their playtime. Mrs Lee (the auxiliary) marshalls them into school. The P.E. teacher, Mrs Aire, is waiting for them in the hall. Children take off their shoes and socks and spend 20 minutes on various running, stretching, curling and jumping activities. Like the rest of the class Ian participates fully in the spirit of the occasion ("Jump up like a rocket taking off").

11.05 Ian puts on his sandals and is fourth in the line waiting to leave the hall. Chats with his neighbour. Since the music 'room' is in use, the class return by going the long way round through 4 other teaching areas.

11.08 Ian sits with three others at the milk table. Their discussion is interrupted when Mr Hamilton asks them about their morning's activities.

11.23 Upon a request from the teacher, Ian fetches his Ladybird reading book and sits with Jane and Iris round Miss Dean's chair. They take it in turns to read from prose passages and word lists.

11.30/

11.30 Ian puts his reading book away and goes over to the other side of the class area to join a boy playing with a plastic interlocking construction kit. After a few seconds changes his mind, walks through Mrs Barber's area and out to the toilet in the lobby.

11.32 Comes running back and talks briefly with the boy using the construction kit. Fetches pencil case and sum book. On a fresh squared page he copies two number lines (0 1 2...9) and the first column of eight sums from the blackboard. (At this point Ian could not refer to his teacher since she had briefly disappeared from the teaching area.) Begins to fill in the answers: 8 + _ = 8; 6 + _ = 8; etc.

11.37 Gets up to fetch rubber but realises that Maurice already has one. Another boy comes by and asks to borrow the rubber. Maurice asks Ian for help with his sounds work. Ian suggests he should think of the sounds: "Ch, its got a ch in it".

11.46 Ian takes 3 cuisenaire rods from the tray left on the table by Iris but makes very little apparent use of them. Begins to write out the second column of sums (eg, 7 + _ = 8; 1 + _ = 8). Talks to himself about the work: "I wish its finished"..."(later) Oh dear".

11.57 Rubs out the second answer column of 8s and writes them in again. (By this time some children have completed their set work and begun to do 'choosing'.) Ian completes the sums.

12.01 Takes his book for Miss Dean's inspection. Replaces it in his drawer but remembers that it should have been put on the marking pile. Starts work in his 'sounds' book. (Although the jotter comprises blank pages, Miss Dean has already inserted suitable guidelines on a blank double page.) The right hand page is divided into 6 squares and Ian begins to prepare a picture to illustrate the word 'catch'. Fills the entire square with colouring and then remembers he has left out the word. Attempts to rub out some of the colour. Iris asks Ian for words beginning with 'st'.

12.19/

12.19 All six squares filled (catch, match, stitch, witch, pitch, rich). Ian begins to write his sentences on the bottom half of the left hand page. He reads the key words from the blackboard.

'I see a cheek.
I see a chimp.
I liek cheese.
I choose at scool not always.'

He carefully enters all the full stops as a final flourish.

12.22 Ian begins to make up words and put them against the numbers on the top half of the same page:

	sh		st		ch
(1)	shot	(4)	star	(7)	choose
(2)	ship	(5)	still	(8)	chat
(3)	shop	(6)	stick	(9)	chose

12.25 Puts book to be marked. Watches girls playing at 'hymns' in the base. Moves on to dismantle some unifix blocks.

12.33 Starts playing football on the floor with another boy using pieces of modelling apparatus.

12.35 Miss Dean asks the class to tidy up and then gather round her chair for 'stories'. Maurice has brought a sub-aqua diver's wrist compass/pressure gauge. Miss Dean uses this opportunity to give a short object lesson: "Who would use this watch?...What else does a diver wear?" Ian answers three of her questions ("I know why they've got flippers - to help them swim").

12.45 Ian listens while Miss Dean asks the class riddles from a book brought in by one of the girls. (eg, Why does a cook put on a white hat? To cover his head.)

12.55 Entire class are sent to fetch their coats and school bags. (Although there is no homework, the children take their reading books home.)

13.00 The class gather round their teacher to say a formal and unison "Good morning Miss Dean". Ian disappears immediately to go home for his dinner and a haircut.

As the last children gradually melt away the school cleaners/

cleaners began to appear with their vacuum cleaners, brushes and rubbish bags. Only 37 days remain until the summer holidays.

May 1975

A DAY IN THE LIFE OF A TEACHER

Although this is her first year in the open-plan annexe, Miss Law has been with the school for 4 years. On Thursday, 15th May - just like any other working day - she arrived in school before 08.30 and went straight to her work area and began writing the day's programme on the (brown) blackboard. As she wrote, the space became filled with a set of eight sums; work for the children's busy books; and a summary of the basic tasks of the day ('(1) red sum book (2) busy book (3) 4 sentences (4) paint a landing craft'). Much of the work is planned round the theme of 'space exploration'. The children's ages range from 6 to 7 years.

08.40 Three of the class are already standing around talking among themselves. Mrs Michie (an auxiliary) is topping up the painting jars with fresh paint. Miss Law goes to the staffroom for a quick cup of coffee.

08.5[illegible] Returns and talks informally with Mr Hamilton and some of the children. Build-up of children in the class area. Some of the boys are playing in the space rocket.

09.00 Miss Law asks Hugh to round up the rest of the class from the playground. (There are no bells.) The children (11 girls and 14 boys) line up in the class area and file into the hall for the Primary Two hymn practice. The other teachers leave their children in Miss Law's care. 140 children sit round the piano while she rehearses the difficult passages and checks that the children can match the tune to the words.

09.08 Mrs Nuthall comes into the hall and briefly changes place with Miss Law. She isn't satisfied with the children's/

children's singing at the previous assembly and asks them to try the hymn again.

09.12 Miss Law returns to the piano and rehearses each of the six classes in turn. As some of the non-participating children become restless, Miss Law stops the practice to remind them of the disturbance they are creating.

09.24 Hymn practice is brought to a close with all the children singing the first verse of the hymn. The children file out row by row. Upon returning to her class Miss Law asks the children to join her in the semi-enclosed class base bringing their homework books. Tells them that she is postponing 'news' until the end of the day. One by one, five different children are asked to read what they have written about 'a spacecraft landing on earth'. The whole group are invited to comment on the answers. The discussion leads to a minor diversion to consider the relationship between heat and friction. Miss Law asks the children to rub their hands together.

09.35 Miss Law moves on to the homework sums and, with the children's assistance, recalculates the answers. When asked, three children indicate that they made an error. Miss Law comments on their answers by asking, for instance, whether they have the right number in the 'hundreds' column.

09.37 The work programme is outlined. (Because of lack of space on the blackboard, Miss Law is unable to write out the vocabulary words until the children have entered the sums into their books. This they must do some time before break.) As the children leave the base they put their homework jotters to be marked, fetch their sum books from the drawers and sit at the tables in the class area. While she moves around checking that everyone has a pencil, Miss Law reminds the class to write the date and their practice numbers before starting to write down the sums. Helps boy look for lead pencil among a jar of coloured pencils. Waits while the class write out the first sum and then goes through the/

the process with them.

09.49 Leaves the children to continue with the sums or to move on to another activity. Miss Law consults her mark book and then calls out the names of one of the reading groups. Four boys bring their books to where she is sitting. The boys read individually as Miss Law continuously scans the rest of the class. Occasionally she intervenes to elicit information, to prompt and to encourage.

09.58 Miss Law gives Neil permission to go out to the lobby. Reading group disbands. Neil returns with a painting overall but is unable to find paper in the painting area. Appeals to Miss Law for help. Miss Law goes over to the painting area and finds some paper. Reminds the class to complete their busy books and sum books before break. Sally and Martin are asked to bring out their reading books.

10.06 Miss Law explains to the class that they must finish writing out the sums so that she can clean the board during break.

10.10 End of second reading group. Miss Law asks the 'milk boys' to fetch the crate and straws from the lobby. Asks Simon to bring his reading book. Reminds Hugh to copy down all the sums.

10.15 Begins marking the homework books while the children drink their milk. Exhorts the front table to finish their sums. Reminds the children to come suitably dressed the following week for the school photograph.

10.24 When the children go out to the playground, Miss Law discovers that Hugh has not written out all the sums. Marks the rest of the homework books over coffee in the staffroom while chatting with colleagues. Becomes drawn into a discussion of the mechanics of teaching addition.

11.00 Class reassembles after break. Miss Law asks the four children who have returned to their painting to leave what they are doing. All the children are requested to fetch/

fetch their 'sounds' books. Miss Law stands at the blackboard and writes up the 28 special words offered by the children (moon, crater rockets...capsule, spacewalk). Some words provoke discussion. (Eg, Is 'astronaut' preferable to 'spaceman'?)

11.15 Asks the children to choose four of the words and write a sentence for each. Some children return to their painting (and leave the sentences until later). Miss Law sits down and begins to mark the sum books. Two boys interrupt her carrying a long thin painting of a space rocket. She discusses with them where it might be displayed. Eventually she climbs on a stool to hang it in the open space between the class and painting areas.

11.25 Returns to marking. The children come out to collect their books. If there are any errors the children correct them and return them to be checked.

11.27 The 'phone rings persistently in the lobby. Miss Law rushes out to answer it. Returns and speaks to Hugh who is still working at his sums. Tricia asks to go to the toilet. Mrs Mackinnon, one of the other teachers, stops by to speak to Miss Law. Two boys ask to go to the Library. The marking continues.

11.40 Miss Law finishes marking the available sum books and then moves around the class to visit the children who are still working at the tables. While sorting out some sticky paper besides the storage shelves, Miss Law overhears a girl asking for the spelling of 'engine'. Helps her to complete the sentence.

11.50 Reminds the class that there is only 10 minutes left to finish their books. Cuts out sticky paper. Helps Hugh with his sums - by now he has resorted to unifix blocks.

11.58 Miss Law asks the boys who played in the rocket to remember to give other children a turn on subsequent occasions. Requests the class to tidy up. A boy brings out a broken biro.

12.00 All the class are sitting at their tables. Different children/

children give out scissors, sticky paper and thin card. Miss Law shows the entire class how to make a rocket by folding, cutting and mounting the sticky paper. Hugh continues with his sentences. Miss Law helps the children who have cut incorrectly.

12.20 The children decorate their cut-outs as they wish. Some use scraps of sticky paper, others use coloured pencils. One boy asks if he can include the American flag. Miss Law finds one for him in a class library book.

12.27 The children who gave out the equipment are asked to collect it in again. Miss Law writes the homework on the blackboard for the children to copy in their homework books (six spelling words, three sentences and two 3-digit subtraction sums). She gives out the homework jotters. One girl asks for a new book.

12.41 Some children begin to pack up their school bags and go into the base. Miss Law chats informally with them while waiting for the others. (Two are at the toilet, five are writing out the homework.)

12.45 Miss Law starts the 'news' session. Individual children stand up and recount such activities as visiting the dentist or staying at grandma's. Others have brought books on space travel to show the rest of the class. These activities spill over into the time Miss Law normally sets aside for reading a story to the children.

12.57 Miss Law dismisses the class from the base and reminds the milk boys to carry out the crate. Talks with another teacher while the children put on their coats.

After lunch Miss Law supervises a primary three class in the school library from 1.30 until two o'clock. (This is part of her duty as school librarian.) During the rest of the afternoon she completes her marking and clears up the few items of debris that remain scattered around the class area. Although Miss Law leaves behind the hurly burly of class work when she goes home at three o'clock, the school day is still not over. During the evening she sets aside a few quiet minutes to consider the days events and/

and to write out her work plan for the following day.

11th June 1975.

A DAY IN THE LIFE OF A CLASS

3M comprise 30 boys and girls whose ages cluster around 8 years. Along one side their rectangular class area (designed for 25 children) opens out onto a 'wet' zone that is shared with two other classes. On Tuesday, 20th May 1975 the children began to arrive in the school building by 08.30. When John came in carrying a bucket of winkles, the other children gathered round. He took some out of the bucket and claimed that "they might attack the school". The other children seemed to be both horrified and amused.

08.50 Mrs Thomson enters the class area. Immediately the children focus their attention on her presence. After counting the class while they sit at their tables, she asks them to gather round her chair by the blackboard. Most of the children sit on the floor.

08.56 The last child arrives. For the next 30 minutes the class eagerly confront their teacher with photo money and with the excitement of their weekend's exploits. (Many of the children had been away from home since Monday had been a local holiday.) Mysterious plastic bags are unpacked to reveal sea shells, foreign coins, holiday leaflets and other objects for the display areas. Gavin has brought a model windmill. Other children describe their holiday activities - a visit from granny, a joyride in an aeroplane, a shopping expedition, a weekend in a caravan. In their anxiety to catch the teacher's eye, some children forget what they are going to say. When Mrs Thomson asks if anyone had a bad weekend, only Gordon replies in the affirmative.

09.25 Although not all the children had been given the opportunity to contribute their news, Mrs Thomson directs the class's attention to the work already on the blackboard. (Since about half the class are to go to craftwork in the after-

noon, she feels under some pressure to give them the maximum time to complete their formal activities.)

09.37 The children disperse to their desks while the jotters are given out. Without any apparent sign, 6 boys move into the painting area and continue their cooperative art work (preparing a life-size portrait of a viking warrior, and a scaled-down painting of a longship). Remainder of the class begin the work programme. Not all of them start with the first item. Mrs Thomson reminds those who have 'see me' in their books to join her in the reading area. Three children come forward. Stephen asks to go to the toilet.

09.45 The blue reading group (2 boys, 2 girls) are requested to bring their books to the reading area. While the children are reading aloud, Mrs Thomson maintains contact with the rest of the class. One girl comes out for a spelling word; another brings a note from her parents. Hamish asks for the pink paint. After some discussion about possible alternative procedures, Mrs Thomson asks him to wait until Mrs Anderson (the auxiliary) becomes available.

10.00 End of first reading group. Donald gains Mrs Thomson's attention and sits opposite her on the reading bench to give her his 'news'. Jean takes her maths book to be marked. Susan has broken the buckle on her shoe; Mrs Thomson offers to 'phone her mother to bring a replacement at hometime. Different children ask for spelling words - ocean, telephone. One of the painting group asks for white sticky paper to make the horns on the viking's helmet. Susan is sent to the nurse for a pin to fix her sandals.

10.15 Julie receives a reminder that she "hasn't done a thing since last time". All the children are now sitting at the tables. (Although not conventional desks, the tables have a shelf below the working surface on which the children can keep their personal belongings. Their school bags are slung on the backs of the chairs.)

10.20/

10.20 As it is raining, Mrs Thomson cautions the children to take care while they are in school during playtime. Within two minutes the whole class have migrated into the wet area to eat their sweets, crisps, apples and sandwiches. During playtime they gradually drift back into the class area and stand around chatting.

10.55 After break Mrs Thomson gives the entire class a short spelling exercise based on the previous day's homework (stayed, clever, drove, home, next). Puts the new homework on the blackboard for the children to write in their homework notebooks. (It is linked to the class work and includes six spelling words and 4 simple division sums.) The other activities continue. Someone asks "what colour is an octopus?".
The yellow reading group convene (5 members). Two boys go out to paint.

11.15 Some children begin to finish their work programmes and move on to optional activities (painting, plasticine, 'My book on the vikings'). Some children take longer at their formal tasks since they have additional work specially devised by Mrs Thomson.

11.25 Children move between the tables ("Can I borrow your felt pen?"). Gordon and Julie are searching for a rubber on the floor. Children approach Mrs Thomson with a range of problems (difficulties with spelling and maths, requests for the large scissors). While answering their inquiries she moves around among the pupils' tables tackling problems as they arise. Richard asks for help with spelling 'fiddlesticks' and 'bottle'. Other children are looking at items in the display areas (one each for 'the sea', 'Holland' and 'the vikings'). Four children modelling in plasticine.

11.50 Julie receives some individual tuition. Mrs Thomson stands near her while marking work brought by other children. Some of them receive special encouragement to complete the work before they go to knitting.

11.58 Two girls begin to line up at the edge of the carpeted class/

class area. Eventually, all the class are ready for lunch. Some go off to the hall while the others remain to eat their packed lunches in the wet area. The weather begins to improve and by 12.30 most of the children have moved out into the playground.

13.05 The class reassembles and sit at their tables. Mrs Thomson sends the knitters out into the wet area. Mrs Robertson (the craft teacher) arrives as they are unpacking their knitting bags. Under her supervision the group rapidly settle to their task of knitting small garments for soft toys. They continue with this activity until 14.25.

13.07 The purple reading group assemble in the reading area. Martin asks permission to go to the Library. Julie complains that she is not feeling well. Only 6 children remain working at the tables. Scott searches for his orange pencil. Mrs Thomson catches his eye while listening to the reading group.

13.27 Julie approaches Mrs Thomson and is asked to sit beside her. Mrs Thomson marks Julie's book. Jonathan asks to go to the toilet. Two girls come back from the Library. Julie gets up to sharpen her pencil and returns to her seat. Reading group move on to a new story. Mrs Thomson discusses it with them in relative peace. End of reading group.

13.40 Girl starts work in plasticine. Gordon is drawing a windmill. Julie completes the work programme with Mrs Thomson's assistance.

14.00 Two boys prepare a collage to decorate the sails of the long ship. Mrs Thomson convenes a 'poetry' corner. Eight children gather - some with their own poems. They take it in turns to read aloud.

14.05 Julie sorts out the jotters into neat piles. Kevin cleans some paint off his jacket. Katie colours a chart of wild flowers. Only five children are sitting at the tables.

14.15 Mrs Thomson invites the two boys who appear to be wandering about to join the poetry group. Other children are listening/

listening to the poems although not part of the poetry group.

14.28 Paul asks Mrs Thomson to inspect his plasticine model. Some children begin to pack their school bags. The knitters return.

At 14.35 the class listens while Mrs Thomson announces that she will be absent the following day. She also reminds them that it will be the last day for the photo money. When the children are ready and standing by their tables, they reply as a group to Mrs Thomson's "Good afternoon". The 'party' people are dismissed first (it is Heather's birthday). By 14.40 the children have all disappeared leaving Mrs Thomson to complete her marking and write out the next day's work on the blackboard.

11th June 1975.

Note:

These three accounts have been prepared to give some idea of the pattern of life within an open-plan school. A class, a pupil and a teacher were selected at random from a population of 17 classes. The only restriction placed upon the selection procedure was that the final sample should include one representative from each year (1 - 3).

The class teachers were given at least a day's advance notice of the observation. It was explained that the purpose of the data collection was to prepare an account that would be comprehensible to an interested outsider. Within a few days of each observation, the teachers were provided with a preliminary draft to comment upon. In two cases a further draft was submitted. These teachers' suggestions have been incorporated in these final versions.

* * * * * * *

THE LOGIC OF THE OPEN PLAN SCHOOL

'Knowledge one has acquired without sufficient structure to tie it together is knowledge that is likely to be forgotten'

(Jerome Bruner, *Psychologist*)

It is a truism of education that the daily lives of teachers and pupils are affected by the political, economic and intellectual climate of a nation. The extent of this influence, however, is less well understood. It is very difficult to translate national statistics into the day to day realities of the classroom. Very little is known about the real or potential impact of, for example, variations in pupil/teacher ratios, changes in school design, modifications in the length of the school day or alterations in the duration of compulsory schooling.

In traditional 'scientific' research terms these questions have proved unanswerable; even where all the relevant variables have been identified, the problem of untangling their relative effects has remained intractable. Nevertheless, questions of the form: what are the conditions necessary for the translation of an untried idea into the realm of educational practice are still central to any consideration of educational change.

Clearly, this issue lies at the heart of discussions about primary education. For more than two decades architects, administrators, educationalists and teachers have jostled with each other to present their own specialist viewpoints. In turn, ideas about space utilisation, cost efficiency, learning effectiveness and job satisfaction have reverberated through the many layers of the school system.

This essay attempts to explain these developments by drawing out some of the more crucial ideas, events and practices. It treats the open plan school not as an isolated entity but merely as one of the more visible aspects of a much broader movement affecting secondary as well as primary education.

OUTSIDE EVENTS AND IDEAS

Basically, the open plan school attempts to provide for a particular type of teaching method and curriculum. No claim is made in this essay that these methods and curricula are new. Their contemporary significance arises from the fact that a separate set of historical and demographic factors has enabled them to take root and develop. What are these factors?

One major influence on the nature of primary schooling relates to the gradual raising of the school leaving age. Whenever the duration of compulsory schooling is increased, the proportion of time that a child spends at primary school is reduced. As a result, primary schooling takes on more and more of a preparatory character. In other words, it receives much less pressure to provide the elements of a complete education. The primary schools of today prepare children for secondary education, not the 'world of work'. There is, however, a confounding factor. The preparatory role of the primary school is made very unstable by the current rate of social and educational change. It is extremely difficult, therefore, to identify and devise a suitable preparatory curriculum for the primary school; the pattern of future events is too unpredictable.

The inherent instability of the primary school curriculum is reflected in the way it has vaccilated in response to educational fads and fashions. Although these vaccilations are sometimes considered to be one of primary education's chronic weaknesses, they can also be regarded as one of its enduring strengths. The readiness with which unworkable or outdated techniques have been dropped from the primary school curriculum suggests that it has developed a degree of open-ness and flexibility which, until recently, has been absent from the higher reaches of the education system.

A second influence on the primary school has come from the growth of pre-schooling. In one sense this development undermines the curriculum of primary education by pre-empting some of its traditional tasks. In a different sense, however, pre;schooling has (or can have) an enhancing effect. It can provide children with some of the basic social, intellectual and emotional skills that are necessary for the successful organisation of the primary school. Although such skills (eg, the ability to share resources, to listen to a story, and to survive for extended periods away from home) may seem trivial, their acquisition can take up a large part of a child's first year at school.

A third development in primary education relates to the explosion of knowledge. The teaching of reading provides an illustration. It is commonly stated that the purpose of teaching children to read is to introduce them to the 'world of print'. Not much more than one hundred years ago the world of print was comparatively small. For most Scottish school-children it revolved around the Bible - a book with a finite vocabulary. Today, however, the world of print has become an expanding universe. As such, reading is no longer simply a case of word recognition. In short, the modern requirement is not only to teach children reading (a passive process) but also how to read (an activity). As this example suggests, primary schooling is not so much about teaching facts as about teaching children how to learn. The three Rs are still central to this process but they take on a different role. They are the raw materials, not the finished product; they are the means to an end, not the end in itself.

A fourth influence on primary education arises from the fact that there are fewer and fewer prior grounds for stressing one area of the curriculum rather than another. This has not always been the case. In the nineteenth century, for example, the demand for literate clerks and numerate shop assistants helped to shape the elementary school curriculum unambiguously around the three Rs. Nowadays the situation has changed. A child's future vocation is much less easy to predict. In effect, modern primary schools have to take account of adult careers

that do not yet exist. This uncertainty is reflected within the school setting by a greater concern for the whole curriculum (or, as it is sometimes expressed, the 'whole' child).

This attention paid to the whole child is also fuelled by a growing belief that children can learn from many different sources and in many different ways. In this sense, for example, painting is not simply to be regarded as an aesthetic experience; it also provides opportunities for muscular coordination (essential for writing), for the appreciation of space and scale (mathematics) and for the differentiation of colour and tone (vocabulary). To the extent that every activity contributes to every other activity, the boundaries of the primary school curriculum are relatively arbitrary. As a result, it is educationally much easier to justify the inclusion of an activity than to demonstrate its irrelevance. Again this makes the primary school curriculum much more open and fluid.

Finally, research on child development has had a profound influence on primary education. For many years - to cite a trivial instance - it has been known that children must learn to crawl before they can learn to walk. More recently, a comparable level of understanding has been reached with respect to a child's intellectual growth. It is now more widely realised, for example, that children must be able to distinguish shapes before they can learn to read, that they must have a sense of two-dimensional space before they can appreciate a map, and that they must be able to differentiate volume and weight before they can develop a concept of density. Clearly, information about developmental learning has had a considerable impact on the organisation of the primary school curriculum. In particular it has led to a much closer integration of the various elements. The teaching of reading provides a further illustration. It is now unfashionable to use the concept 'reading readiness' - a view which implied that reading was separate from other activities of the curriculum. Nowadays it is usual to acknowledge the importance of literacy-related activities by referring to them as 'pre-reading skills'.

IN THE REALM OF PRACTICE

The external factors described above also have had an impact on the way teachers behave and on the way schools are designed and equipped.

Teaching Methods

Primary schools that aim to promote intellectual flexibility through the use of open curricula cannot employ closed teaching methods to achieve this end. In short, 'drill and practice' may be an efficient way to transmit factual knowledge but it is a much less effective technique for fostering curiosity and self-assurance. Similarly, didactic class teaching is a clumsy if not contradictory method for teaching the kind of skills required of an independent but flexible mind. Once again, the teaching of reading provides a practical illustration. Children can be taught to 'bark at print' by means of class teaching, but need a much more personalised form of tuition before they can 'read for comprehension'. As this example suggests, the development of new curricula also requires the formulation of new teaching methods. In this case, the major shift is from impersonal to personal teaching methods, not from whole-group instruction to individual tuition. A move away from class methods does not guarantee a move towards personalised methods. For instance, whole-group teaching can be highly personalised (especially if the teacher and class have known each other for a long time). Likewise, individual tuition can be highly impersonal (as in programmed learning).

At the present time the emergent methods and purposes of the primary school bear a close resemblance to those of an Oxbridge tutorial. Their social context, however, is fundamentally different. Primary education is currently organised on the basis that teachers and their pupils will share the same working place for most of the school day. By contrast, university lecturers are only directly responsible for their students during the relatively few occasions when they arrange to meet. Furthermore, when university lecturers organise their tutorials, they arrange to see the students privately or in small groups. Thus, before they can use tutorial-type methods, primary teachers - unlike university lecturers - must first consider the activities

of their entire teaching group. This has important implications for the organisation of primary teaching.

To establish and preserve the 'privacy' of their tutorials, primary school teachers must first design a core of activities which the rest of their children can follow without direct supervision. Second, they must devise methods for monitoring their pupils' progress by indirect rather than direct means (eg, through the use of self-correcting apparatus). Third, they must plan a layout for the class area so as to make equipment accessible and pupil circulation possible. And finally, to achieve an uninterrupted flow of events they need to develop work schedules that allow individual children to switch easily from group activities to individual tuition. This type of preparation is essential to the successful implementation of tutorial methods in a primary school. It is not, however, the whole story. The day by day tactics of teachers also presuppose a set of long term goals related to the overall social, emotional and intellectual development of their pupils. The formulation of these strategic goals is a teaching task that cannot be realised over-night. It requires the wisdom of experience rather than the virtue of preparation. Just as the running of a home is much more than the making of beds and the planning of menus, so the implementation of tutorial methods is much more than the marking of books and the organisation of reading schemes.

Besides an appreciation of its short and long term significance on the part of the teacher, the development of tutorial methods also requires a high level of independence and responsibility among the children in a teaching group. These pupil attributes complement those of the teacher. They are not, however, entirely separate. If children do not possess these skills then their realisation must be a necessary part of the teacher's overall planning. For instance, before children can follow a tutorial system they need to learn where equipment is stored, how it should be replaced, where they should put their books to be marked, what they should do if they want to go to the toilet and, not least, how to control the sound of their own voices.

Equipment

An open curriculum also requires a much more varied and extensive provision of resources. There would be no point, for instance, in introducing children to the world of print if they were simultaneously denied the resources of a library. Likewise, if it is considered important that pupils should be allowed to exercise their own choice, then they must be offered a range of realistic alternatives.

Resources can also be provided in other ways. As suggested earlier, a generous supply of space (eg, for pupil circulation) and ample provision of time (eg, for teacher preparation) are also connected with the successful development of tutorial methods.

Not surprisingly, a curriculum that stresses personalised teaching methods can also benefit from additional human resources. In recent years this extra human capital has been created in various ways. Most important has been the gradual reduction of pupil/teacher ratios. Clearly, tutorial methods are more feasible with smaller teaching groups.

The redistribution and refurbishing of existing capital is a second way of releasing human resources. The emergence of team teaching and cross teaching, and the growth of in-service training are two examples of such a redistribution. A third kind of human capital has been created by the introduction of extra non-teaching staff such as classroom auxiliaries. To the extent that auxiliaries are able to take over many of the teacher's tasks, they inevitably create more time for her to work on lesson preparation and tutorial teaching. Furthermore, teachers and auxiliaries can jointly protect the privacy of the tutorial situation. That is, if children need certain kinds of help, they can be taught by the teacher to go directly to an auxiliary.

Pupils provide a fourth kind of human resource. By helping each other, children can supply much of the assistance that might otherwise come from teachers and auxiliaries. However, pupil cooperation does not emerge in a vacuum. It requires, for example, a suitable setting for the pupils to gain access to each other and careful but indirect supervision on the part of the teacher.

School Design

The type of curriculum described in the foregoing analysis is not specific to schools designed on the open plan principle. It could also be used in a classroom school. However, to the extent that classroom schools were designed as a series of separate self-contained rudimentary schoolrooms, their specialist services (eg, water, fresh air, books) were inevitably located quite separately from the individual classrooms; that is, at the end of corridors or outside in the playground. Nowadays, the increased importance of these resources in the primary school curriculum has meant that they need to be located much closer to the child's regular working milieu. Very often, however, it is not economical to provide them within every classroom. Therefore, to make such limited materials generally available, it is important that they are made easily accessible. This is a design problem which, in part, can be overcome by the removal of doors and walls and by the recasting of building regulations. One of the teachers in the case study school highlighted the significance of these factors when she said 'My teaching methods haven't changed (since I moved into the new building), but *it's so handy.*' Nevertheless, it is also true that the design of the case study school did not overcome all problems related to access. An interview study revealed that children whose class areas bounded the courtyards were four times more likely to have been out-doors than children whose class areas were further away. (No class area, however, was more than eight metres from a courtyard door.)

To this degree, the development of open plan schools is not so much an educational response to a change in teaching methods as an architectural response to a greatly increased use of specialist plant and equipment.

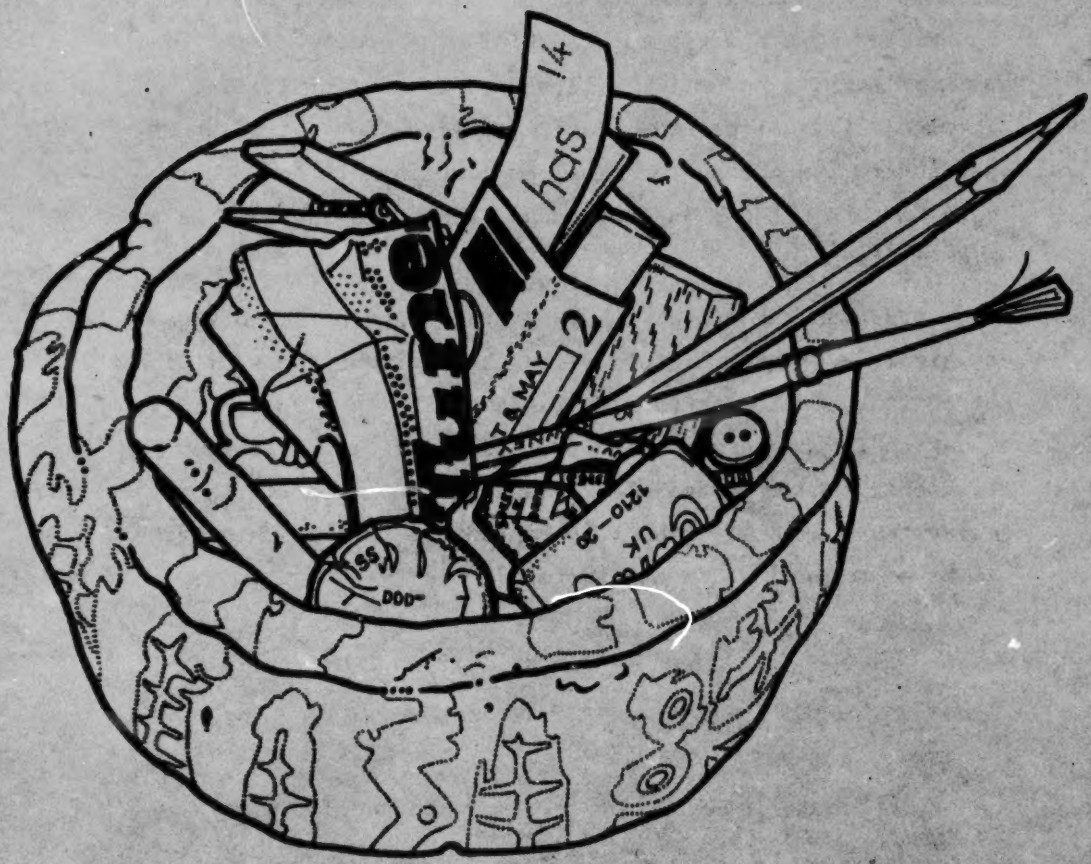
CONCLUSION

This essay has tried to explicate and inter-relate some of the diverse notions and activities that characterise recent developments in open plan schooling. Whether these ideas are widely implemented or even fully accepted is, of course, a separate question. Certainly, critics of primary education

have been quick to exploit any apparent discrepancies between the aspirations of educationalists and the practices of teachers. Sometimes the educationalists are blamed, sometimes the teachers and their pupils. Nevertheless, as this essay indicates, such explanations are inadequate. The successes and failures of schooling are rarely the sole responsibility of any one group in education. The implementation of tutorial teaching in a primary school demands much more than well-trained and skilful teachers. Without a generous supply of equipment, space and preparation time and without the kind of support offered by auxiliaries, its potential will always remain unfulfilled. Likewise, all the resources in the world cannot establish an open curriculum unless teachers, pupils, parents and others begin to acknowledge, understand and share the assumptions on which it is based.

Open plan schooling, like any other kind of schooling, is not simply a cluster of theoretical assumptions, less still a set of individual practices. If the teacher's task in education is to translate theory into practice, it is the researcher's task to translate practice into theory. In so far as the case study school attempted the former, this essay has tried to accomplish the latter.

23rd February 1976.



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RESEARCH NOTES

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A PRELIMINARY NOTE ON CASE STUDY METHODOLOGY

As a national organisation The Scottish Council for Research in Education has always been concerned with research of a country-wide relevance. Central to this endeavour has been the correct assumption that valid inferences about the distribution of educational phenomena can only be made by studying the entire population or, failing that, a random sample drawn from it. Over the last 45 years the Council's work in this sphere has drawn international recognition.

Set against these facts the Open-plan Study is unusual: it is based on intensive research in a single self-selected school: Immediately, then, a variety of methodological questions present themselves. How can the results from a non-random sample be generalised? How can the researcher place the school in a wider context? In addition, doubts are sometimes raised as to the conduct of such research. Surely the researcher's presence in the school affects the teachers and the pupils? How can bias in the selection of data and interpretation of results be avoided?

Nevertheless, despite these problems The Scottish Council for Research in Education agreed to sponsor the study, and the Social Science Research Council agreed to fund it. This account offers some of the reasons that may have guided their decisions.

Generalisation

The notion of generalisation used in survey research derives from the natural sciences and assumes the constancy of the object under investigation. To take a simple example under controlled conditions experimental results pertaining to sodium chloride can be extrapolated from Scottish samples, to English samples, to French samples and so on. Should there be any discrepancies between the initial and the subsequent results, they are usually attributed to measurement error or to the impurity of the experimental sample. Whichever the case the difficulties are overcome by removing the impurities and/or repeating the experiment. Strictly speaking, then, results from one batch of samples cannot be extrapolated to new cases unless the latter instances are taken to be identical with each member of the original set.

It is now considered doubtful whether this assumption

remains intact when applied to the social sciences since, in many cases it is the non-removeable 'impurities' (ie, situation-specific effects) which account for the observed results. While the survey approach can eliminate certain impurities by statistically controlling for their effects, there are limits to this procedure. It does not apply to cases that lie outside the original sample. Hence if outside cases contain impurities not present in the original study, no amount of statistical manipulation can bring them into line.

Given a growing recognition of these difficulties, educational researchers have sought additional or alternative approaches to the problem of extrapolation. One suggestion has pointed out that, in practice, the generalisation process rests as much upon an analysis of the new setting as it does upon appraisal of the original exemplars. For example, suppose a group of teachers develop a new reading scheme for their own school. In the first instance they will be more interested in its applicability within the school than in its potential transferability elsewhere. In due course, however, outside teachers may show an interest in the scheme and try to assess its suitability for their own classes. To do so they will have to examine information generated in the original school and combine it with their own experience. Thus, only through a detailed awareness of their own requirements can the new school sift the outside information and make a considered choice.

Clearly this type of generalisation differs sharply from the arbitrary application of statistical inference. Instead, it requires three conditions to be fulfilled: (i) detailed knowledge of the experimental setting; (ii) detailed knowledge of the receiving conditions; and (iii) the active and critical participation of individuals.

Recently, it has been argued that an important role for educational research should be to meet the first condition and provide detailed case studies of individual instances - pupils, classes, curriculum projects, even entire education systems. Certainly, surveys can also provide detailed information but because their priority is to examine the attributes held in common by a variety of settings rather than those unique to any particular setting they are relatively inefficient for this purpose. By contrast, case studies can easily accommodate this

requirement within their remit; they are free from such external constraints and can, in principal, examine any aspect of a given situation. This procedural flexibility - a cornerstone of case study research - is particularly pertinent to investigations that are exploratory in style.

Nevertheless, to be adequate to the situation under review, and account for its complexity, the researcher must be able to place it within a broader educational, historical and social context by using other, often far-flung, sources and materials. Thus, while case studies are built round individual settings their investigational boundaries are extensive - governed more by the availability of research resources than by any cluster of theoretical prescriptions.

Objectivity and Researcher Intervention

Whatever claims are made to the contrary, the presence of outside personnel has an impact on the workings of a school. In the past this argument has been used to undermine the credibility of research conducted in this way. Detractors have claimed that the published findings are not an accurate or objective representation of the 'reality' obtained within the school. In many instances this criticism holds substance, particularly when the researcher has tried to ignore the impact of his or her presence.

However, it is equally true that research of this kind, by succeeding in 'telling it like it is' has also promoted the opposite critical reaction. Through moving up close to the day-to-day world of the school it has produced accurate portrayals of the concerns of teachers and pupils. Herein, it seems, there lurks a paradox which can only be resolved by accepting that the quality of research conducted in schools has little, in fact, to do with the presence of the researcher. Rather, it relates more to the purpose of the research, the way it is conducted and the issues that are explored.

There is a further point. As suggested above, it is sometimes supposed that objectivity can only be achieved if the investigator maintains a social or physical distance from the object of the research. Typically, this means using postal questionnaires; concealing the real purpose of the study from the 'subjects'; or acting as a 'fly on the wall'. However,

another way of defining objectivity - the one used in this study - is to say that it can only be achieved through a detailed and intensive study of the phenomenon under review. It can be argued that when the researcher immerses himself in the data the degree of subjectivity will diminish rather than increase. In short, increased knowledge arrived at through close involvement is held to be an additional basis for objectivity. Of course, it is not guaranteed by this procedure - other strategies must be deployed to check the veracity of the findings.

Observer Bias

Besides cross-checking findings by using multiple measures a further procedure for establishing the truth or falsity of data and interpretation is to establish whether they are acceptable to the participants in the research. Thus, to feed back preliminary results is not regarded merely as a research courtesy but also as an important element in the overall strategy.

The outcome of such a process need not be overall acceptance or consensus. Indeed different viewpoints among the participants will almost certainly generate different reactions. Nevertheless, whatever its consequences, the process can greatly increase the accuracy and relevance of the mutually generated accounts and interpretations. To the extent, then, that these outcomes are independent of the researcher and those researched they also contribute to the overall objectivity of the investigation.

Bibliographic Note

This account draws together ideas from the following sources:

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THE BACKGROUND AGENDA

The aims of the Open-plan Study have already been set out in the proposal submitted to the SSRC, and in the information sheet prepared jointly by the SCRE and the school. In two respects, however, these documents contain problematic assumptions about the research. First that its goals are purely educational (eg, 'to prepare an account of the setting up and workings of an open plan setting ...'); and second, that the investigator is competent to carry out the study. This paper aims to compensate for the imbalance of the previous statements by outlining certain items on the 'background agenda' of the study. That is, those additional elements (methodological objectives, controversial issues) which, in research rather than pedagogical terms, are also vital to its overall survival.

One important goal of this study is to feed back preliminary reports during the course of the research. On practical and epistemological grounds this is thought to be desirable, yet few researchers have been successful in the attempt. Do the problems arise from the quality, volume or timing of the feedback; from conflicting definitions of the situation; or from a lack of attention to audience expectations?

A second interest relates to the relatively short duration of the study. Is it possible to maintain fieldwork throughout the twelve month period (and thereby remain sensitive to the changing school situation)? Is it possible to allow time for discussion within the school by submitting the final report before completing the fieldwork? If so, can a satisfactory balance be achieved between primary and secondary fieldwork (analysis, interpretation, writing up)? Likewise, to what extent can a short-term study depend upon other agencies (eg, typists, librarians, inter-library loans) to meet its relatively urgent servicing demands?

A third concern is to re-examine the idea that the collection, analysis and writing-up of data need be compartmentalised activities conducted separately and in sequence. Can the 'final' report be written up as the research proceeds? Is it possible to prepare a series of mini-studies which can be bound together as a

terminal report? (Note: as indicated in the SSRC proposal, this need not be the only style of reporting; different analyses may also emerge at a later date.)

Finally, and perhaps all-embracing: how is it possible to sustain the legitimacy of the research over a 12-month period? How can the research 'contract' be made mutually beneficial? How is it influenced by the background agenda of the school? How relevant, if at all, is the written feedback material?

All of these issues are central to the Open-plan Study. As yet, they are examined but untested. At a later date it is planned to prepare a complementary document which re-examines them in the light of the project's experiences.

David Hamilton
15th April 1975.

A METHODOLOGICAL DIARY

When the SSRC Educational Research Board funded this case study they added the rider: 'We hope that the report will include an account of the difficulties and opportunities that you encounter ....'. This diary attempts to meet that request.

Most of the difficulties that emerged during the case study were not in the methodological but in the theoretical domain. The basic problems can be indicated in the form of two questions:

1. What is the best way to allocate the finite resources available to a project of this kind? (Thus, for instance, the problem is not 'how to interview' but 'whether to interview'.)
2. What is a suitable (theoretical) framework for reporting this type of study? (Thus, the problem is not with the collection of data but with its organisation.)

The following personal account tries - albeit in a truncated form - to illustrate these problems. It is based on biographic material collected during the course of the research. All cited documents are included elsewhere in this report.

November 1974

Approached by Bryan Dockrell (Director, SCRE) to do a 'case study/responsive' research project in a new open plan school. He proposed that we should apply to the SSRC for a 'chairman's nod' grant. This type of proposal (for less than £6,000) can be processed more rapidly than a project or programme proposal. The case study idea appealed to me not only because it would provide me with regular employment, but also because it would give me the opportunity to extend some earlier interests. I began to sketch out a proposal while working on a five week assignment for the NFER.

December

Visited the case study school with Bryan Dockrell and Malcolm Corrie. Wrote (and rewrote) the remainder of the proposal. The SCRE offered to employ me out of internal funds for January-February. Offer gratefully accepted. Text of proposal completed by Christmas. Began to consider a major

research problem: that the study was to be conducted in a grant-aided rather than a local authority school. Many people consider such schools to be irretrievably atypical.

January

Research programme cut from fifteen to twelve months to keep within £4,800. (Final application was for a year's salary and £150 for travelling expenses.) Proposal submitted on the 13th January. Began to clear my desk of other commitments (eg, conference paper, chapter for proposed Schools Council book). Attended British Education Research Association Conference on the training of researchers.

February

Able to devote more time to the proposed case study. Began to draft 'A note on methodology' and an information sheet. The latter took shape following three meetings held with the school. (It could be regarded as the 'research contract' negotiated between myself and the school.) Arranged a school meeting for the 5th March to meet all the teachers. By then I expected the SSRC to have made their decision.

'Phoned up two colleagues to inform them of my proposal. Discovered that they had already been asked to act as referees! Visited the NFER. As the month passed, I heard through the grapevine that my proposal was unlikely to be ratified before the 5th March. Rescheduled school meeting for the 12th March. (It was later put back until after the Easter holidays.)

March

I gradually began to find my way around the SCRE. Drafted 'The background agenda' and began to formulate an overall research strategy. Decided to integrate data collection and report writing; and to build the research around a maximum of three days fieldwork per week. At this stage (and throughout the research) much of my thinking was influenced by the fact that I might not be at the SCRE (or even in Scotland) when the research came to an end. Thus, it was vital that the report(s) should be completed before that time. As I only had typing pool support, the production-time for the report could not be worked out by a simple formula. It also depended on the other work presented to the secretaries. For this reason I chose to write a series of essays (which could be typed up independently as they were written). This strategy also fitted with the idea that my report would be selective.

Thought up a provisional title: 'Essays From an Open Plan School'. This title seemed appropriate (vastly superior to 'Lessons from an Open Plan School') since it indicated the selective nature of the research and, furthermore, help to direct the reader's attention to the issues rather than the school (ie, essay *from*, rather than essays *about*). Later I spent a great deal of time deciding whether to insert 'primary'. In the end I left it out; many of the ideas in the essays could relate to secondary as well as primary education.

My attention caught be a quotation from Albert Einstein reprinted in the *Atlantic Review* ('space is not merely a background for events, but possesses an autonomous structure'). The juxtaposition of 'space' and 'structure' rang a bell. The concept of structure had also been used by one of the assistant head teachers I had met at the case study school. Returning from a conference on 'Applied Anthropology' I bumped into a colleague on Waverley Station, Edinburgh. She told me that my grant had been funded. The official notification was dated 31st March (11 weeks after submission of the proposal).

April

The unanticipated delay meant that the research schedule was put back by a month. My first full meeting with the school staff was on the 16th April (the second day of the summer term). After being introduced to the teachers by the headmaster, I talked briefly about what I might be doing over the next year (see *Meeting with P1-3 teacher*). Discovered later that, for most of them, this was their first real knowledge of my research. One of the teachers asked when I planned to start. Although the various delays had made me fairly anxious to start straightaway I decided to wait until the beginning of the next week so as to give the teachers time to talk it over in my absence.

My first two weeks of fieldwork were spent visiting each class area for at least half a day. Thus, as I learned my way around the school, the teachers had an opportunity to see me at work. Almost always I needed to consult each teacher about what I had seen. This also gave them the opportunity to ask questions about my research.

As in earlier research I kept a long-hand record of the general flow of events by writing on the left-hand side of a pocket size spiral-backed notebook and adding explanatory comments in a different colour on the right-hand side. Two other forms of daily records were kept. The first of these was a field diary. Each entry began by recording the time I had spent in the school and then added, for example, the classes or activities I had observed, and the people I had interviewed. Finally, the diary recorded 'quotable' quotes and significant incidents. The second type of daily record was a list of 'interpretative asides' (Louis Smith's term for the insights generated during the course of a research investigation). By the time the research drew to a close this list had 281 entries. This type of record keeping (ie, analysing data at source) was a deliberate attempt to confront the problem of data overflow. In effect it produced condensed fieldnotes.

During the first week at the school I began to draft a descriptive account of one class area by using less than 300 words. I was interested in the problems of 'portrayal' (Bob Stake's term). Despite allocating this task more writing time than any other part of the report, I eventually abandoned it. Interpretation is easy, adequate description is near impossible. The failure of this task marked a turning point in the research. I eventually realised the difficulties inherent in doing ethnography (ie, pure description). I also realised that there is a contradiction between doing ethnography

and being selective. In the end (ie, by November) I dropped the terms 'ethnography and description' and substituted 'anthropology and explanation'. (To use a metaphor from physics, I became more interested in the dynamics of the situation than the kinetics.) Ultimately I realised that I was moving towards theory building as a form of condensed portrayal.

May

After observing each of the Primary one to Primary three teachers I decided to prepare three accounts based on a day in the life of a pupil, a teacher and a class. Using a telephone directory as a source of psuedo-random numbers I selected three classes and then approached the teachers concerned. None of them refused to participate. I explained that I wanted to prepare accounts that might give an interested outsider an inkling of what it was like to work in an open plan school. In addition I told the teachers that I would give them the opportunity to comment on my accounts; that I would notify them in advance of the observation day; and that I would use psuedonyms in the final versions.

The field notes that I took during the observation days resembled those I had kept during the initial observation except that I kept a much more accurate time record. The preparation of these reports taught me several lessons: (1) that it is very difficult to capture an entire day in seven pages of typescript; (2) that it is not easy to convey meaning through reported speech (many classroom requests by teachers appear to be authoritarian commands); and (3) that description and interpretation are two sides of the same medal.

The teachers began to realise that my research was aimed at making sense of the everyday, commonplace events of the school. 'All in a day's work' became the catch phrase that summed up this interest.

Up to this time I had done most of my writing away from the school but when I began to interview teachers I also began to treat the school as part of my office. The teacher interviews were directed towards preparing an account of the events leading up to and including the move into the new building. Each teacher (total 20) was asked: (1) 'What part of the old building did you work in?'; (2) 'What was it like at the time of the move?'; and (3) 'How, if at all, do you think your teaching has changed following the move?'. Alongside the interviews I began to prepare a report for the teachers based on my first weeks at the school. This drafting proved difficult since I was trying to write for a very close and critical audience.

June

The final version (*In search of structure*) was finished by June 10. Part of it was used in a talk I gave to the SCRE on that day. I found the completed report a source of embarrassment. One research colleague thought that parts of it were patronising. Within the case study school it drew two reactions: three people commented on the style in which it was written and two people said (in the words of one of them) 'I'm glad you've described our teaching

in that way'. In retrospect, I realise that despite its deficiencies much of the early report resurfaced in the final essays. Also, I now feel it did much to establish an atmosphere of open-ness between myself and the school staff.

Began to consider the topics I would focus upon in the autumn term. Missed the last week of the summer term because of a pre-arranged summer holiday.

July

The summer vacation was taken up with two research tasks. First, I prepared a draft of 'Becoming an Open Plan School' on the basis of the interview material that I had collected. Second, I began to gather material for 'Open Plan Schools past and present'.

August

During the holidays I visited the case study school on two occasions. The second occasion was on the day before term started to discuss, with the teacher concerned, my plan to focus attention on her reception class during the first few days of the school term. (This P1 teacher had agreed the previous term to take part. She was chosen by myself - on the basis that I had found her to be highly articulate about her work.)

September

The early part of the autumn term was the most hectic part of the research year since I was commited not only to day by day observation at school, but also to attending the BERA conference in Stirling (1-4 September), to making a hurried visit to Sussex University and to writing a paper for a conference at Jordanhill College of Education. Although I had not specified how long the intensive observation would last I eventually stopped when I realised that I would be unable to analyse the material in the time I had available. During this period I also began arranging interviews with the parents of the class I was observing. (I eventually conducted thirteen interviews at school and the remainder over the telephone.) At the end of September I spoke at the Jordanhill conference ('Open Plan Schools past and present') and attended a SSRC conference on classroom research at Nottingham University.

October

September had been a very busy month for the secretaries at the SCRE such that I had found it very difficult to get my work typed. Thus, I began in earnest to prepare for the final report and decided upon a series of essays and a set of research notes. From this time I tried to organise my writing as to keep a steady flow of material which could be put onto stencils. To this extent the production of the final report began before the half-way stage of the research. About this time I decided to prepare my report as a mimeo edition of one hundred copies. Overall I considered this mimeo version to be the penultimate report. By this means I would not only be able to

fulfil contractual obligations but also to collect comments which could be incorporated in a final, more public version. (Any decision regarding the dissemination of my research report rests with the SCRE who hold the copyright.) Took a week's holiday. Much of my time during the rest of October was taken up with drafting half-completed essays. This marked a gradual shift from data collection to data analysis and report preparation. 'Becoming an open plan school' went through three separate versions that were shown to different members of the school. (By the end of the research 10 staff members of the school had seen part of all of the report.) Drafted a report-back information sheet for the parents I had interviewed.

November

Began organising the pupil interviews used in 'All work and no play'. Completed 75 interviews in five days. Subsequently realised that I had made a tactical error by choosing to look at inter-year rather than inter-class differences. If I had included more children (eg, ten per class rather than five) I would have enough interviews to examine either kind of differences. I had originally chosen to look at inter-year differences not only to keep the number of interviews to a manageable level but also to avoid the interpretative difficulties of explaining differences between teachers. When the essay eventually took shape I could have made good use of inter-class differences.

Visited by Neville Bennett from Lancaster University. Distributed information sheets to parents. Spent most of November redrafting and expanding 'First days at school'. Also taught for two days. On November 12 I was asked to speak for fifteen minutes at a parents evening. The severe time limit forced me to think hard about what I might say about open plan schooling. By the time I had finished writing my talk I realised that I had solved a problem that had been bothering me for some time. My talk to the parents (together with a second opportunity in December) laid the foundations for the final essay (The logic of the open plan school).

Made contact with someone who was interested in illustrating the final report.

December

Before I left to go to a week-long conference in Cambridge on the 13th December, I had three essays ready for stencilling. Two essays, however, remained unstarted.

January

Early January marked the project's lowest point. It seemed there was still so much to do. However, by the end of the month I had every essay in various states of completion. A recurrent problem at this stage was to allow enough time not only for the teachers to read the essays but also for me to redraft the essays in the light of their comments. Struggled to provide the illustrator with a reasonably complete version of the report. Became much more conscious about research security - all drafts kept in duplicate; I could not afford to lose my briefcase.

Began to draft the proposal for my next piece of research.

February

On the 19th February I met the headmaster of the case study school and listened to his comments on the entire report (not all of it in final form). On the previous two days I had given seminars about my research at the SCRE and at Lancaster University. The final essay was handed to the secretaries on the 23rd February. I was able to take account of the comments made by the headmaster and the participants of the seminars. Arranged a final meeting at the school on the 30th March in order to collect the comments of the case study staff and to answer their questions about the research and the report.

POSTSCRIPT

A number of issues reverberated throughout the period of the research.

1. There was a constant need to put the research in context. In the event I needed to spend as much time reading around the subject matter as I did inside the case study school. This suggests that a major concern for case study research is to maintain a flexible relationship between the specific and the general.

2. In some respects I was aware that by my selective focus I could be regarded as taking a 'soft' uncritical line with the school. I recognise that I tended to examine how it worked rather than how it didn't work. Nevertheless these are not separate questions. To begin to understand how something works is also to begin to understand how it could fail. Overall, I feel that the last essay can comprehend the professed failings of an open plan school as well as its successes.

3. An unresolved difficulty (or failing) of open plan research arose because it proved impossible to tackle many of the issues that other people might consider important. As they stand each essay is, therefore, a foreshortened account. To include further topics would have forced an unacceptable degree of superficiality in the overall treatment. My own preliminary literature search left me with the impression that many of the available sources on primary education are very superficial (even those written by educational researchers). Thus, I aimed for depth rather than coverage. Whether I have succeeded in this attempt is, of course, a different matter.

4. At one of the February 1976 seminars, someone felt that I should have provided more footnotes and references in my essays. This was something that I had given a great deal of thought to. In the end I decided not to play academic games. In one sense, the near absence of references placed more (not less) responsibility upon me to be accurate and clear in my writing. Second, I felt that references can be an obfuscating device, inhibiting rather than fostering learning. Finally, I felt that it was

invidious to cite written sources while ignoring the (unwritten) contribution made by teachers, colleagues and others. This problem proved most acute in the final essay since some of the ideas and emphases were triggered by comments made by parents whose names are unknown to me. In the fullness of time I plan to expand 'The logic of the open plan school' and include much more material and many more examples and references.

25th February 1976.

THE CASE STUDY OF A NEW SCOTTISH OPEN-PLAN PRIMARY SCHOOL

(Copy of proposal submitted to the Social Science Research Council 13th January, 1975)

This proposal arises from a request made to The Scottish Council for Research in Education by a Scottish school. Funds are sought to conduct a twelve month study of the school's new open-plan primary department.

Background

Following the publication of the Scottish Education Department *Primary Memorandum* (1965), the educational provision for young children in Scotland has advanced in a number of directions. The emergence of new specialisms, the transformation of existing schemes of work and the build-up of resources for 'slow-learners' have all been the subject of detailed discussion and recommendation. Alongside these organisational and curricular changes there has been a parallel movement towards rethinking the educative environment that contains these developments[1]. The architectural label 'open-plan' has often been used to characterise such trends. Yet, the implied link between the educational and architectural usage of these terms is not always sustained in practice - its empirical status remains problematic. Indeed, the initial approach made to the SCRE reflected a similar uncertainty on the part of the headmaster and staff of the school concerned.

Until very recently, attempts by researchers to address issues such as these have been hindered, even foiled, by both the absence of a suitable and acceptable methodology and by the dearth of satisfactory channels for feed-back and dissemination[2]. Questions posed by practitioners and other interest groups have remained unexamined in research terms. Nevertheless, the extension of open-plan provision continues, guided, it seems, largely by the conviction of its advocates and the vagaries of educational economics.

Currently, however, developments in curriculum evaluation, classroom research and case study methodology offer a possible means of overcoming former difficulties[3]. The proposed investigation plan to exploit these potentialities and thereby extend the cognate studies already conducted by the SCRE[4]. At the risk of over-simplification, such research uses an 'applied anthropo-

logical' rather than a 'pure psychometric' perspective. It aims (i) to augment the understanding and awareness of those directly involved with the school; (ii) to furnish a broader appraisal appropriate to the expressed interests of other pertinent audiences - the Scottish Committee on Primary Education, parents, teachers, HMIs, colleges of education, administrators; and (iii) to provide information relevant to the future development of open-plan research. Further, to the extent that 'understanding and awareness' are conceptual and imaginative, the proposed study will also contribute critically to a growing corpus of pedagogic theory[5].

Methodology

Consonant with its summary designation as applied anthropology, the investigation will rest heavily upon fieldwork methods. At first, most of the activity will take place outside the school and comprise open-ended interviews with members of those groups described above[6]. Gradually, however, the emphasis will shift towards the open-plan setting. Already, a number of possible issues can be foreshadowed. For example, how are the public areas of open-plan space penetrated as the teachers and pupils become acquainted with their opportunities and limitations? How do the 'reception' children respond? What use is made of private space (eg, custom-built 'quiet' areas)? What are the existential boundaries used by the different participants? What effect, if any, do open-plan developments have upon other educational boundaries (eg, subject and temporal distinctions)? How do pupils and teachers establish and retain their educational identities?

Although necessarily posed in very general terms, these questions can be tackled empirically using a variety of overlapping techniques. Interviews, structured and unstructured observation, and paper and pencil procedures[7] can be used repeatedly over time to illuminate the processes and practicalities of open-plan schooling. Further questions - perhaps not yet manifest - can also be negotiated and addressed.

The broad strategy, then, is heuristic. Rather than conduct a preordinate research study for which there may be few 'advance organisers' of a theoretical nature, the intention is to

move closer to the day-to-day concerns of one particular school. From an intensive study of this kind it will be possible to establish an extensive data base. In turn, this will optimise the translation of practice into theory.

Reporting and Dissemination

It is envisaged that the feedback will take three main forms:

1. The preparation of a research 'folio' containing progress reports, mini-studies, documents, letters, offprints, etc. The main purpose of this device will be to provide the school with a running account of the investigation. It would, of course, also enable the teachers to respond to the account while the study was still in progress. Given sufficient demand and the requisite permission(s), this material could be made more widely available - either in its entirety or in an edited version. Besides offering very rapid feedback, it would be relatively easy to produce.

2. Return visits to the original 'interest groups'. (During the first visits they would have been asked 'what form would you like the feedback from this project to take?')

3. The preparation of a summary report which would be suitable for submission to the funding agency, and, in appropriate form, would also be published by the SCRE.

In addition there is the possibility that the results of this study will merit dissemination through academic channels (eg, conference papers) or through the medium of a published book. Should this be the case, however, the preparation of such accounts would take place after the conclusion of the investigation.

Timetable

Strictly, all these activities will run concurrently. Nevertheless, the priorities will change as the research develops.

March-April 1975	Negotiations with the school and other interest groups.
March 1975-December 1976	School-based field work. This will be particularly intensive during the summer and autumn terms.

September 1975-March 1976	Gradually increased emphasis on the preparation and dissemination of feed-back materials.

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Notes

1. Eg, I Westbury, 'Conventional Classrooms, "open" classrooms and the technology of teaching', *J Curric Studs*, 5, 99-121.
2. Witness, for example, the difficulties uncovered by the NFER 'Evaluation of the Primary School' and the delays encountered by similar proposals currently before the Schools Council. For possibly the most advanced work in Britain see the SSRC project 'The nature of classroom learning in Primary Schools' (D Boydell and B Simon, University of Leicester).
3. Eg, R E Stake 'Responsive Evaluation', SCRE 1974; D Hamilton and S Delamont 'Classroom Research: a cautionary tale', *Research in Education*, No 11, 1974; R Walker, 'The conduct of educational case study: ethics, theory and procedures', University of East Anglia Centre for Applied Research in Education, 1974.
4. See M Corrie, *Space for Learning*, SCRE, 1974.
5. Eg, L M Smith and P A Keith, *Anatomy of an Educational Innovation*, Wiley, 1971; U P Lundgren, *Frame Factors and the Teaching Process*, Almqvist and Wiksell, Stockholm, 1972; B Bernstein 'Visible and invisible pedagogies', University of London Institute of Education (mimeo).
6. These exploratory interviews would also include research colleagues with allied interests (eg, Deanne Boydell, Leicester; Neville Bennett, Lancaster; Phil Clift, NFER; John Elliot and Clem Adelman, Norwich; Susan Kleinberg, Jordanhill College of Education).
7. The methodological approach will build upon D Hamilton *At Classroom Level: studies in the learning milieu*, PhD Thesis, University of Edinburgh, 1973.

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Postscript

Notification of the award was not received until 31st March 1975. Hence the research began one month later than originally planned.

THE SCOTTISH COUNCIL FOR RESEARCH IN EDUCATION

16 Moray Place
EDINBURGH
EH3 6DR

CASE STUDY OF A NEW SCOTTISH OPEN-PLAN PRIMARY SCHOOL

Origins: This research arises from an approach made to the Scottish Council for Research in Education by a school that had recently acquired a new purpose-built open-plan annexe. The SCRE then made a formal approach to the Social Science Research Council who agreed to provide the salary and overheads (typing, travel, etc) of a full-time researcher.

Duration: Twelve months (1st April 1975 - 31st March 1976).

Staff: David Hamilton (Research Officer, SCRE).

Aim: To prepare an account of the setting-up and workings of an open-plan setting over a period of 12 months.

Operation: Initially the study will build upon topics suggested by the school staff and other interested people (eg, parents, HMI's, the architects). Later, the staff will be invited to comment, during the course of the investigation, upon interim (and provisional) research reports. Finally, to preserve the integrity of the school and the researcher, prior and mutual agreement will be established as to the publication of any material that might emerge from the study.

Methodology: The research will be based upon fieldwork conducted within the school throughout the duration of the study. It is envisaged that the researcher will be present in the school for up to three days per week. Within this framework, a variety of overlapping techniques will be deployed to elucidate data and cross-check their validity. A central concern will be/

be to collect the experiences and insights of teachers and pupils. At the same time these discussions will be placed in context by linking them to observation and 'paper and pencil' techniques. Observation, for example, might range from detailed analyses of space utilisation to more open-ended studies of children's activities (eg, 'a day in the life of John Smith'). The paper and pencil procedures might include a questionnaire circulated to all the teachers or a drawing exercise completed by all the children (eg, 'My classroom').

Style of Reporting: The intention is to acknowledge the range of audiences who might be interested in this research (parents, teachers, etc). In the first instance a variety of mini-reports will be compiled as the research proceeds. In turn, these will be revised in the light of comments received from participating teachers, re-written around specific themes and, where appropriate, published by the SCRE. Finally, for the sake of overall coherence these reports could also be bound together and published in a single volume.

April 21st 1975.

Post Script: In practice, this research has developed two relatively distinct components: (i) school specific studies, (ii) studies of a more general concern. To date, 27 days have been spent at the school observing classes and interviewing teachers and children. The data collected in this way have been used to document the experience of moving from a cellular school building into the open-plan annexe; and to prepare descriptive accounts of a day in the life of a teacher, a class and a pupil (each randomly selected).

In addition, a five-page report was prepared at the request/

request of the school staff. By describing the variety and patterning of teaching across the school it tried to provide a broader basis for discussion than is usually accessible to the isolated class teacher or casual visitor. In particular, it explored the idea - widely professed - that the open-plan school is a 'structured' setting.

Finally, the historical development of open-plan schools in Scotland has also been researched and written up.

August 25th 1975.

This letter was sent on school notepaper to all the parents in a Primary One class.

Scottish Council for Research in Education,
16 Moray Place,
Edinburgh EH3 6DR.

8th September 1975.

to: all parents of children in 1N.

Dear Parent,

With the cooperation of (the school) I am conducting a 12-month study of the new open-plan annexe.

Between August and October I shall spend most of my time with Mrs Robertson's class. My intention is to investigate how one group of 5-year-olds respond to their new school surroundings. To augment the information collected at school it would be very helpful if I could also interview at least one parent of each child.

These interviews need not last any longer than 10-15 minutes and would focus on two questions:

i Has your child attended a play group or nursery school?

ii How has she/he reacted at home to her/his first days at primary school?

If you would like to assist in this research please could you return the tear-off slip. In due course Mrs Robertson or myself will contact you to arrange a suitable time and place. (The interviews could take place when your child is brought to and from school or, alternatively, outside school hours.)

Thank you,

David Hamilton (Research Officer, SCRE)

Open-plan Study

I would like to participate .....

I would rather not participate .....

Home telephone ..... Name .....

SOME BACKGROUND INFORMATION ABOUT THE CHILDREN IN PRIMARY ONE

This information relates to one particular class. However, to the extent that this class was assembled at random from the entire 1975 intake, the figures give some idea of the patterns that are likely to prevail across the entire first year (five classes).

Basic Data

Size of class	10 girls, 13 boys
average age (as of 26th August 1975)	5 years 0 months
age range	4 years 7 months - 5 years 6 months
average size of family ...	2.4 children
children with older brothers/sisters at the same school	9

Pre-schooling

All the children had received some form of nursery schooling. The patterns of attendance were as follows:

2 or more years	15 children
1-2 years	5
1 year	3
Every day (ie, mornings) .	21 children
3 mornings per week	2
Private nursery schools ..	16 children
Local Authority nursery schools ...	7

The class of children had attended thirteen different nursery schools prior to their start at primary school. Nine of these nursery schools were privately run, the remainder were operated by the local authority. In addition, four children had attended more than one nursery school - usually because their family had moved house.

Initial Reactions to School

These reactions were noted by the parents during the first weeks of the Autumn term. (Note: the total adds up to more than 23 since some parents reported more than one reaction.)

No negative reactions ..... 9 cases
disappointment (eg, "I did not learn to read and write today").. 5
tiredness 4
tears 3
tendency to be short-tempered 3
occasional reluctance to go to school ... 3
occasional sleeplessness (waking up at night) 1

Parental Occupation

Father		Mother	
Trade/commerce	7	Medicine	3
Medicine	4	Secretarial	3
Engineering	4	Nursing	2
University/ research	2	Commerce	1
School teaching	2	Other	2
Banking	1		
Other	3		

Note: The early part of this report is derived from interviews conducted with at least one parent of each child. The information regarding parental occupation was provided anonymously by the school from its own records; that is, without linking occupations to names.

October 28th, 1975.

David Hamilton
Scottish Council for Research in Education,
16 Moray Place,
EDINBURGH
EH3 6DR.

(This information sheet was distributed to the parents who had provided the information.)

Draft for comment.

IN SEARCH OF STRUCTURE

This paper was written in the summer term, 1975, as a preliminary report for the teachers in the case study school.

Introductory remarks

This brief document contains an outside observer's impressions of the patterning across the first three years of an open-plan primary school. Its purpose is to make sense of the apparent complexities of classroom life and, in particular, to explore the idea - widely professed - that the open-plan school is a 'structured' setting.

No claim is made that these notes are anything but selective and tentative. However, to the extent that they refer to a broader canvas than is usually accessible to the isolated class teacher or casual visitor, they may help to illustrate both the individual variety and the overall coherence that prevails within the school. Likewise, no attempt is made to 'weigh' these practices against any particular set of standards; the attribution of merit or the allocation of blame is considered irrelevant to the concerns of this account.

The first part of this paper discusses the change in emphasis between PI and PIII. The second section looks at the potential 'craft' skills associated with teaching in an open-plan school. Finally, it considers the delicately-contrived nature of classroom 'structure'.

Overall, these notes represent an introduction to further studies already in progress or planned.

PRIMARY I TO PRIMARY III

Many of the changes that occur over this range are self-evident and universal. The children grow older, bigger and more versatile in the ways of schooling. There are, however, a range of other changes. Some, for instance, reflect the organisation of primary education in Scotland; others are

related to the traditions of the school, to the exigencies of its present situation, or to the interests of its teachers. Briefly, they can be listed as follows:-

1. The class sizes increase by up to 20% (from 25-30 pupils) without a proportionate increase in teaching space.
2. The school day is lengthened by 15% and divided into one extra teaching session.
3. The PIII class areas are more rectangular in design and have fewer openings. As a result the boundary between wet and dry areas is more obvious.
4. The PI work tables become replaced by pupil-specific work places (desks or tables with shelves).
5. More children sit facing the board.
6. Blackboard space becomes a scarce resource as the volume of written work increases.
7. The wet areas are more likely to be used later rather than earlier in the day.
8. The older children are less likely to work on the floor.
9. There is an increase in the level of specialist teaching. (In combination with the extra break, this injects a more obvious timetabling into the pattern of daily life.)
10. Homework becomes more highly organised and is set more frequently.
11. In PI the class teachers remain relatively stationary while the children tend to move about. In PIII this pattern is reversed: the teacher becomes more mobile, the children more sedentary.
12. (The remaining variations are more speculative.) Activities that are commonly designated as 'play' are an obvious feature of life in PI but have virtually disappeared by PIII. At this later stage they are replaced by other activities (eg, craft, projects) which, nevertheless, supplement the basics in an equivalent way. At first glance these PI and PIII activities have much in common - especially since they may involve the same materials (paints, plasticine). However, they differ in two important respects. 'Play' concerns the individual child (a form of self expression) and is quite separate from the basics. Whereas, PIII craft work is much more a cooperative activity directed towards work-related goals.
13. Between PI and PIII the distinction between work and non-work becomes more deeply embedded in classroom life. Perhaps this is best illustrated by the patterns of behaviour surrounding the consumption of milk. In most of the PI and II classes, the children take their milk at any time or at any place (not necessarily the milk table). Likewise children

may continue with their work programme while drinking their milk. It may, indeed, be regarded as one of their assignments. By PIII most of this has disappeared. Playtime is seen as an occasion for a child to stop work, move from their work area and take their refreshment. As in the expression 'play pieces', these activities are regarded as synonymous.

14. A final variation is that the ebb and flow of classroom events is much more conspicuous in PIII. During PI the children are scattered all over the wet and dry areas, many of them engrossed in individual tasks that may bear little obvious relationship to that of their neighbour. By PIII the children move much more as a group or a class. They are more likely to be working on cooperative, subject-specific tasks, or using class sets of equipment.

PATTERNS OF TEACHING

In all classes I found it difficult to understand certain events. On occasions I had to ask a teacher or one of the pupils to act as an interpreter. This suggests that many processes relevant to the organisation of classroom life are controlled by a silent language that is peculiar to the participants in that situation. For example, a teacher may redirect a child's activity simply by a slight change in speech inflection or by a subtle shift in body posture. As the children learn the significance of these gestures, the teacher also learns to read the signs displayed by the pupils. The relationship is gradually personalised as each child becomes an individual in the mind of the teacher.

This idiosyncratic structure of rules and accepted practices is crucial to the conduct of educational affairs. Yet, to an outsider, it is seldom immediately apparent. Thus, observing the passage of classroom events is rather like watching a successful dramatic production. Given the polished performances, it is very easy to forget the weeks of rehearsals, the occasions when everyone spoke at once, or the night when the lights failed and the scenery collapsed.

Teaching as a craft

Rather like the stage-craft associated with acting, there is an equivalent craft associated with teaching. In primary schools (and especially in open-plan settings) this craft is

related to a cluster of specific skills. In many respects these skills have little resemblance to conventional notions about teaching that derive from secondary school practice. Here is a provisional (and incomplete) list:-

1. Teachers have to learn how to initiate and control activities in a non-verbal or indirect manner. This is not only because so many activities take place at the same time but also because there are limits to the noise levels which can be mutually tolerated in open-plan settings.

2. They need to be able to organise a complex set of resources in order to maintain an appropriate level of busy-ness in the class. The most critical feature of this skill is that it usually operates without sufficient resources for each child to choose unilaterally what they want to do. (If the secondary teacher is a ringmaster, then the infant teacher is a juggler.)

3. At the same time, the primary teacher has to monitor, evaluate and respond to a range of widely different in-puts from the pupils and elsewhere. Paramount is the skill of selectively neglecting invitations to intervene.

4. Given the diverse curriculum followed in the primary school (bookwork, craft work, painting, singing, etc) much of the extra work (eg, tidying up, preparation) must take place within the classroom setting. Thus a primary teacher needs to organise her preparation so as to make the optimum use of the limited time she can afford to spend at school. (This skill is also shared by secondary teachers of practical subjects.)

5. Given the multiple activities that may be taking place at the same time, primary teachers need to develop a sophisticated sense of timing and pacing - not only during the day but also throughout the year. (To cope with these demands, the teacher may utilise an elaborate system for monitoring pupil progress.)

6. Since there is very little of adult interest in the knowledge they are trying to transmit, primary teachers must be able to find interest in the most repetitive and boring tasks.

THE STRUCTURE OF TEACHING

By themselves, however, skills such as these do not guarantee a competent performance. In any classroom situation there are other equally relevant factors such as the size of class, the availability of resources (eg, books and apparatus), or the nature of the curriculum. Thus, even among teachers with similar views, a wide variety of teaching styles may be observed.

In the school that forms the focus of this research, some of the teachers stressed the importance of 'structure' to the organisation of teaching. In effect structure refers to the way teachers orchestrate the diverse elements of the curriculum. Among other things it relates to:

1. The strategies they use to underwrite the day-to-day activities of their classes.
2. The importance they place upon the sequence followed by each child or class.
3. The way they divide the curriculum into 'basics' and 'frills'.

Strategies

These refer to the management and administrative procedures used in classrooms. Thus, some teachers plan their work around a daily cycle, others use a longer period. Some divide their learning space into subject-related 'areas', others divide the space into 'quiet' and 'noisy' zones. Some make their own work cards for English, others use printed materials. Some use graded-vocabulary reading schemes, others allocate reading books according to interest. Some use ability groups, others prefer individual or class methods. And so on.

Sequence

This concept refers to the way a teacher programmes each day's activities. A 'strong' sequence implies that certain activities logically precede others. 'News' or 'stories' might be limited to the first or last part of the day; children might be discouraged from taking milk until after break; or the library might be 'out of bounds' until the assignments have been completed. By contrast, a weak sense of sequence places no such constraints upon teachers or pupils. (A weak sense of sequence

is, presumably, essential to the organisation of a 'truly' integrated day.)

Dividing the curriculum

Over the last 70 years the primary school curriculum has changed to include many activities previously considered unsuitable or irrelevant. In turn, other areas of the curriculum have been displaced from the timetable. Although certain tasks (eg, rote learning of biblical passages) have disappeared, there are still considerable areas of disputed territory. Hence one teacher's 'basic skill' may be another teacher's 'optional extra'. Such differences among teachers are echoed in the organisation of classroom life. Teachers may justify the amount of time they spend on music, art or craft work by referring to such debates. The difference between core and peripheral tasks is also revealed in more subtle ways. For instance, 'frills' are likely to be taught by specialist teachers and to include a high degree of pupil choice, whereas 'basics' are more likely to be compulsory, taught by the class teacher and set regularly for homework.

An open structure

To the extent that teaching is a planned activity, it presupposes some kind of organisational structure. Nevertheless, the structure rarely comes as a prefabricated package (except, perhaps, in programmed learning). Instead, each teacher has to select from the raw materials that are to hand and build up the framework most suited to their needs.

In one important respect, however, this description of structure is inadequate. It conveys the impression that classroom practices are carefully formulated and then rigidly carried out. This is not the case. Teaching is also an opportunist activity. It cannot be entirely pre-planned. In practice therefore the structure must be adaptable, ready at a moment's notice to be modified, cannibalised, dismantled or abandoned.

SUMMARY

In an open-plan school much of the traditional structure of classroom life is missing. Walls have been removed, bells have been silenced and desks no longer stand in rows or even screwed

to the floor. Other long-standing educational distinctions have also been devalued by a similar process. Neighbouring subjects have been combined; timetables have been integrated; abilities have been mixed; and boys and girls have been brought together in the same teaching groups.

Overall, then, it may appear that the open-plan school is a social setting totally devoid of structure. This document suggests that such an analysis is both superficial and incorrect. What, in fact, seems to happen is that the visible structures of yesteryear (many of them outside the control of the teacher) have been replaced by an invisible yet open structure largely devised, controlled and sustained by the collective or individual actions of teachers.

Paradoxically, if this is the case, then it may be necessary to concede that the pedagogy of the open-plan school is, in conventional terms, as teacher-centred as it is open.

9th June 1975.

David Hamilton,
The Scottish Council for
Research in Education,
16 Moray Place,
EDINBURGH
EH3 6DR.

Statement to Meeting of P1-3 teachers, 16th April 1975

(These ideas formed the basis of a spoken presentation)

I'd like to sketch in some of the research background. In particular to indicate why the SCRE agreed to sponsor the investigation, and the government - through the Social Science Research Council Educational Research Board - agreed to underwrite its costs.

For a number of years there have been growing feelings among educational researchers that research has remained very distant from the day-to-day concerns of practitioners within the system. More recently it has been recognised that, in part, this has arisen through an over-reliance upon borrowed ideas (such as research conducted with pigeons and monkeys) and an over-confidence with the results of laboratory experiments conducted under conditions remote from the flux of classroom life.

One outcome of these criticisms has been the suggestion that research should move much closer to the world of the teacher and pupil; in short, that it should incorporate an ecological perspective.

The proposed Open-plan Study embodies these ideas and is an attempt to prepare a detailed account of one particular innovatory setting. However, unlike much of educational research it does not set out to test a hypothesis or prove a point of view. Rather, it aims to prepare a report which is both acceptable to the participants in the study and comprehensible to interested outsiders. Thus, although based in one school, it is hoped the investigation will contribute, in a sensitizing manner, to wider discussions about the problems and possibilities that confront open-plan schools.

16th April 1975.

Memo to research colleagues working in the field of Primary Education.

To: Neville Bennett, Deanne Boydell, Phil Clift, John Elliot, Sue Kleinberg.

From: David Hamilton.

Subject: Discussions on Open-plan Primary Schooling.

Date: 14th April 1975.

As part of my proposal to the SSRC I indicated that I would consult researchers with similar interests. This memo describes the outcomes of those discussions held in February and March 1975.

In each instance I tried to build the discussion around the question "If you were to conduct a 12-month study of an open-plan primary school, what aspects would you focus upon?" Looking back at my notes this question yielded very little of direct interest. Instead, most of the discussions took off at a tangent. In most cases this proved eminently useful since it gave me further insight into a range of other related issues (problems of organising research teams; difficulties in generating theory rather than data; problems of definition etc). In one case it led to visits to 2 schools. However, for the sake of completeness here is a list of the topics suggested in response to my original question.

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1. The relationship between old staff (a source of competence/ conservatism) and new staff (a source of incompetence/ innovation).
2. The rhetoric used to handle controversial issues.
3. The rules which govern movement within the open-plan setting.
4. The motivation behind the school's approach to the SCRE.
5. Whether a changed physical set-up generates new ideas, reactions, perceptions etc.
6. The relationship between space utilisation and ability. (Do different children make different use of the space? How does the teacher intervene in this usage?)
7. The use of auxiliary teachers/helpers in an open situation.
8. How are staff relationships affected by the open-ness (or does it all "boil down to personalities")?
9. To what extent is 'shared' space used egocentrically by the pupils (especially the infants), or the teachers?
10. The forms of social organisation used among the children.

INTERVIEW TRANSCRIPTS

The following material records the interview responses of five children taken at random from each of the fifteen P1-3 classes. The interviews were conducted in November 1975. The purpose of the interviews was to compare year cohorts, not classes. The year of the class can be discovered using the following key: P1 = E, I, J, K, N; P2 = C, F, G, H, M; P3 = A, B, D, L, O.

CLASS A

1. Where do you have your milk?

   Out here (ie, in the wet area)
   I don't have milk
   Out in here
   (I don't have milk)
   Out here.

2. When do you have your milk?

   Usually just before break
   -
   At break time
   -
   Before break.

3. What do you do when you've finished your assignment/jobs/ etc?

   I usually go and do some painting or plasticine or do my reading with (the teacher)
   We sometimes learn our words or do our spelling or read in the library
   Go home
   I sometimes read my reading book or go to the library
   We normally give our books out to the teacher.

4. When do you usually paint?

I usually paint after work or when we are told to paint for an object
Don't know - we paint when (the teacher) asks you
After break
Don't really know - don't paint very often
When we've finished all our work.

5. Who usually decides what you paint?

Sometimes its me if its plain. If (the teacher) wants me to paint she decides
(The teacher)
(The teacher)
The teacher
It's normally the teacher.

6. What sort of things do you do in the courtyard/out there?

I've never been out
We don't go out there
Play
I've never been out there
Read books.

CLASS B

1. Where do you have your milk?

-
Out here (in the wet area)
-
There
-

2. When do you have your milk?

-
Before break
-
Before break
-

3. What do you do when you've finished your assignment/jobs etc?

The work? - sort of play - she puts choose on the board
Play
I do something like paint or anything like that
You play
Well I draw.

4. When do you paint?

When she puts choose on the board or when I've finished all my work
Sometimes after lunch
Really when I've finished all my work. I really just go out and paint
After you've finished your work
Well I don't really paint very much.

5. Who decides what you paint?

Well I really paint anything - something I think of
Sometimes the teacher does
We just decide ourselves
(The auxiliary)
We're allowed to paint anything.

6. What do you do out there (in the courtyard)?

I haven't been out there yet
Play games and sometimes we draw
We've never actually been out there. I don't know actually if we're allowed out there
I don't know
I've never been out there before and no one else in our class has either.

CLASS C

1. Where do you have your milk?

In the classroom (ie, at a table)
Well, usually about here
I don't take milk
In here
At that round table across there.

2. When do you have your milk?

Before playtime
Round about playtime
-
At break time
Just before we go out to play.

3. What do you usually do when you've finished your assignment?

Choose
Play
Go into the base and have a story
Play
Go and play.

4. When do you paint?

Once we've finished doing our work, sometimes
Well, just whenever you want to
When I've finished my work
Any time
Any time.

5. Who decides what you paint?

The teacher or when we're doing a story we do pictures of the story and if we're not doing stories we paint anything
No one - you just make it up yourself
(My friend)
The Teacher
The teacher.

6. What do you do out there (in the courtyard)?

Just play with the sand pit
Just play in the sand pit and get messy and when you come in you get cleaner
Play the farm out there
Make sandcastles
Play with the bricks.

CLASS D

1. Where do you have your milk?

Over there (in the wet area)
Just down there
Down there
Down there
-

2. When do you have your milk?

15 minutes before lunch time, I think
Just before break
At 11 o'clock or something
Before play time - only for six year olds
-

3. What do you do when you've finished your assignment?

We can play or draw a picture or we can write something
Well, I paint or draw a picture or make a book
Paint or make pictures of something
We can choose what we can do
You can do anything you like.

4. When do you usually paint?

Before we go home
When we're on a subject
When we're doing something - cavemen or something -
When I've finished my work
When you've finished all your jobs - when the teacher allows you to.

5. Who decides what you paint?

The teacher
(The student)
Usually (the teacher)
The teacher - we can decide but the teacher may change her mind
Either the teacher tells me or I think up something myself.

6. What do you do out there? (In the courtyard)

We're not allowed out there
We don't really go out there
We never go out there
I've never been out there
I've never been in that courtyard but in the P2 courtyard we played in the sandpit.

CLASS E

1. Where do you usually have your milk?

Over there (pointing to milk table)
(points)
(points)
Over there
Over there.

2. When do you have your milk?

Nearly at one o'clock
When we come back from playtime
After playtime and sometimes before - Angus and I have it after
After we've been in the base
Any time.

3. What do you do when you've finished your assignment/jobs etc?

Play something to do
Just play
What does that mean - I don't think I know
Play
I don't know.

4. When do you usually paint?

I don't know
I don't paint
Any day
When we're playing
Any time.

5. Who decides what you paint?

The people who are what doing the paintings
-
Me
Me
Don't know.

6. What do you do out there (in the courtyard)?

Play a game too
Paint
Run about
Make models
Play things.

CLASS F

1. Where do you have your milk?

Over in the library or on the table
Over there besides the library
In the classroom
Over there besides the books
Over there.

2. When do you have your milk?

Usually after our story or sentences
When it's time to
I think it's after play time
Before play time
Sometimes before break.

3. What do you do when you've finished your assignment?

You do sums and then workbook
Play
You play
Go home
We usually go off and play but if we're late finished we go into the base and have a story.

4. When do you usually paint?

Sometimes I paint and sometimes I don't
I don't paint
When I've finished my work
After playtime I should think
After we've finished all our work or something like that.

5. Who decides what you paint?

You decide yourself
-
-
You can decide yourself
Sometimes we decide and sometimes the teacher decides.

6. What sort of things do you do in the courtyard?

Play
I don't go out there
Nothing
That's another classroom
We would play in the sandpit.

CLASS G

1. Where do you have your milk?

(Points to milk table)
Here
I usually have it here
Here
Round about here.

2. When do you have your milk?

After playtime
Any time
After playtime
After playtime
Sometimes it's before playtime, sometimes it's after.

3. What do you do when you've finished your assignment/jobs etc?

Well, you can build or you can paint or you can glue things
Play
I usually read a book or go into the home base and do something
Play
My work? - sort of anything.

4. When do you usually paint?

Well, actually I don't paint. I don't like it. It's a messy job
When I've got time
Just after my work
Once I've finished my assignment
Sort of when I've finished my work or in the middle of my work. If I do it in the middle, the teacher's wanted me to.

5. Who decides what you paint?

The teacher
Sometimes (the teacher) and sometimes I decide
Sometimes you can paint anything and sometimes (the teacher) wants us to paint something
If it's after sometimes I can do whatever I like. If it's in the middle the teacher wants me to do something special.

6. What sort of things do you do in the courtyard?

You've got bricks to build and sand to dig holes in and there's a fountain, a pool ....
Make castles and make holes
I don't really go out there
We play with the sandpit
Sort of it's usually digging.

CLASS H

1. Where do you have your milk?

Usually at my table
In the classroom on our own chair
They usually sit on the chairs or wander about
Just at my desk
Sitting on my chair.

2. When do you have your milk?

Either before break or after break
Before playtime or after playtime
I've no idea 'cause I never look out there (at the clock)
Before we go out to play
Round about ten o'clock.

3. What do you usually do when you've finished your assignment/ jobs?

Choose to play what you want to
We sort of - go and choose
You can play usually - and paint
Just play
Choose.

4. When do you usually paint?

When I've finished work
Really any time
You can paint in the morning or when you've finished. If the teacher wants you to do something important you do it at the end of your jobs
When we're choosing
Whenever the teacher tells me to.

5. Who usually decides what you paint?

(The teacher) or you can choose what you want.
The teacher sometimes but sometimes we're allowed to do our own painting
You can decide - if the teacher doesn't want you to do
If the teacher wants you to do then you do it and we do it
The teacher.

6. What do you do in the courtyard (out there)?

Not very much
We don't go out there - it's only for the ones
You just play with the sandpit - we never go out there now
I don't know really
Play in the sandpit.

CLASS I

1. Where do you usually have your milk?

Where we come in
Down in the table at the corner
Down where the chairs are
Out there (pointing to the milk table)
At the table where we put our jackets.

2. When do you usually have your milk?

I don't know
Sometimes I don't have any milk and sometimes I do
When we come in from play when my teacher's with us
When we're coming in from the playground
When we come back from playtime.

3. What do you do when you've finished your assignment/jobs?

We do work
I ask the teacher if I can play
Like work? - We do play or go to prayers
-
Drink and play with the toys.

4. When do you usually paint?

After work
When I've got my pinafore
Every day I suppose
Sometimes
After having my milk.

5. Who decides what you paint?

We decide what we want to do
I do
Me
Sometimes I paint people
I tell them.

6. What sort of things do you do out there (in the courtyard)?

We just play in the sand
We play
Play usually
(clicks tongue)
Play with the sand pit.

CLASS J

1. Where do you usually have your milk?

Here (ie, in my place)
That table over there
There - where I was doing my writing
There (pointing to seat)
(Points to seat).

2. When do you usually have your milk?

After playtime
After playtime
I don't know
A long time
I don't know what time.

3. What do you usually do when you've finished your assignment/ jobs?

We play
We play with something
We just go in the base and sit down and (the teacher) sometimes reads us a story
We go in the playground
Get anything to play.

4. When do you usually paint?

After we've been out to the sand
Round there
Any time
Always when I want to
After we've done our work.

5. Who decides what you paint?

The teacher
-
The teacher
Myself
Nobody.

6. What sort of things do you do out there (in the courtyard)?

I dig big holes
Play in the sandpit
Sometimes chase my friends
We play with sand
Make sand castles.

CLASS K

1. Where do you usually have your milk?

Over there (pointing to milk table)
At the milk
At the milk table
At that table with the straws
There (pointing).

2. When do you have your milk?

I don't know
At different times
When I've got time
I don't know what time
On the table at a desk - a long time ago.

3. What do you do when you've finished your assignment?

Choose
Well if I haven't had it (milk) I have it - sometimes I forget to have it
I sometimes have milk and I sometimes paint
Play
You can choose.

4. When do you usually paint?

After my assignment
Well, when I've got time - I don't usually do it
After all the things we've done
Sometimes
Late on. I do it on Saturday.

5. Who decides what you paint?

Myself
I do
Sometimes witches, sometimes people and sometimes patterns
I do
A man.

6. What sort of things do you do in the courtyard?

Play in the sand
I only went there once
-
Make holes
Don't know.

CLASS L

1. Where do you usually have your milk?

I don't take milk
I don't have milk
Out there (in the wet area)
We don't have milk
I don't have milk.

2. When do you usually have your milk?

-
-
Usually in the afternoon
-
(Any time).

3. What do you do when you've finished your assignment?

We're allowed to choose
I paint
I choose things
Well, sometimes I do drawings and well, make books out of paper like that
Just take something out of the cupboard or go and paint.

4. When do you usually paint?

After me work
Straight after my assignment
Usually when the teacher tells me to or when I need to
Mostly in the mornings
After lunch.

5. Who decides what you paint?

I do
I do
The teacher
I paint what I like
You can paint anything you want to unless the teacher says you've got to paint something special.

6. What sort of things do you do in the courtyard?

Read, paint sometimes
Well I don't really go out there
We take a few games out and draw
I usually read
We don't do much but sometimes we have stories there and sometimes we read books.

CLASS M

1. Where do you usually have your milk?

In there (painting area)
There
At the wet area
Just in there
In the wet area.

2. When do you usually have your milk?

After we've been out to play
Don't know
After play time
After play time
After play time.

3. What do you usually do when you've finished your assignment/ jobs?

You can choose anything you want to do
Go into the toys
Play
We play
Play.

4. When do you usually paint?

We just paint occasionally, not very much
I don't really know
After reading
We paint at any time
When we've finished our work.

5. Who decides what you paint?

We can decide ourselves
-
Me
You can do whatever you like
(The teacher).

6. What sort of things do you do in the courtyard?

We don't go out - when we were in the ones we went out to play 'cause there were buckets and things
Play
No
We haven't been
What courtyard? No.

CLASS N

1. Where do you usually have your milk?

   On the desk
   I don't usually have milk
   Can't remember
   There
   I don't have a sort of place.I usually sit wherever there's a space.

2. When do you usually have your milk?

   I don't know
   -
   Don't know
   I don't know
   Before playtime but I don't know when that is.

3. What do you usually do when you've finished your assignment/ jobs?

   Choose
   I go to play
   I play with the bricks
   I play with the bricks
   After we've done all our work we can play whatever we like.

4. When do you usually paint?

   Any time
   I'm going to paint today
   After playtime
   I can't remember
   Sometimes on a Thursday.

5. Who decides what you paint?

   (The teacher)
   I paint all kinds of animals
   Myself
   I paint anything
   (The teacher) sometimes tells us what colour and sometimes we're allowed to paint what we like.

6. What sort of things do you do in the courtyard?

   I don't know
   I don't do anything there
   I don't know
   Where? I can't remember
   I don't think I've ever been there.

CLASS O

1. Where do you have your milk?

Outside there (in the project area)
Outside through that door
I don't get milk. I'm seven
There (project area)
I don't have milk.

2. When do you have your milk?

Any time you like
I don't know
-
We can have it any time we like
-

3. What do you do when you've finished your assignment/jobs?

You can look at books or play
Sometimes we can play - with toys or sometimes we go out to play
The teacher says I can do whatever I want - so that's what I do
Play
We can paint or play with the clock or have a look at the birds and study about the birds and we've got other things to play with.

4. When do you usually paint?

When you've finished your work
When we've finished our work
When I've finished every bit of my work
I don't know
We usually paint when we finish our work and then we study birds.

5. Who decides what you paint?

The teacher if you're learning on anything
The teacher
(The teacher) tells us
The teacher and sometimes we do
We just think up our own paintings or the teacher tells us what to paint. Today the teacher's going to tell us what to paint and draw.

6. What sort of things do you do in the courtyard?

I don't know
I don't know
We go out that way (usual door)
We play in the sandpit and things
That's another class.

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THE ORIGINAL FIELDNOTES FOR 'FIRST DAYS AT SCHOOL'

These notes - written day by day - were not originally intended to be read by anyone else besides the teacher of the class or the author of this report. Inevitably, their style is rather cryptic and terse. They should, therefore, be read with caution. For example, many of Mrs Robertson's instructions are reported without indicating the full inflection of her voice or the actual text of her statement. Thus, her requests or invitations (eg, 'Would all of you please put your chairs neatly under the tables') often appear in print in the form of coercive commands (eg, Mrs Robertson tells the children to put their chairs under the tables). Despite such intrinsic shortcomings, the original material is reproduced here for two specific reasons. First, because it provides a relatively continuous sample account of classroom life in the mid-1970s. And second, because it makes public the full extent of the data used to compile the essay 'First Days at School'. There are, however, two differences between this account and the original fieldnotes. First, the participants' names have been changed; and second, a small number of factual corrections have been included. (The latter are indicated by the use of italic type.)

DAY ONE

(Tuesday, 26th August, 1975)

08.20: Mrs Dewar and Stephen are waiting inside the school door. They are unsure where Stephen is to go. Miss Downie passes by and takes Stephen under her wing and shows him his class area.

08.30: Mrs Robertson arrives *in the area* and switches on the lights. Mr and Mrs Windsor arrive with Michael. Miss Downie moves on. The two boys are settled at tables with their chosen activities. Nicola arrives with her mother. Other parents are moving through the school trying to find a home for their children.

08.45: Emily arrives. Michael leaves the large shoe (a toy for learning about tying shoelaces) and moves about the area. Mrs Robertson shows him how to replace the shoe in its 'proper' place. Nicola is using the plasticine but putting it on the table (rather than the board). She is reminded to use the board.

As the last few children arrive Mrs Robertson *also* shows them where to put their satchels and coats. The children come to be taken round the [illegible]. Each one chooses what they'd like to do. Some children are engrossed in their tasks; others watch the new arrivals.

09.00: Three children sit at the plasticine table, two *work* with jigsaws; one assembles unifix blocks ('look how high this tower is'); three just watch. Michael puts his jigsaw back on the side table with the pieces scattered in the box. Mrs Robertson asks him to 'make sure' to put it back 'ready-made' ('so that we can see if any pieces are missing'). She continues to talk individually to each child (eg, 'Julie, I don't think I talked to you when you came to school'; 'What would you like to do next - painting?'; 'Tell me about your picture').

Children begin to talk among themselves. ('At nursery school we had to play on the floor with bricks - but we didn't have to do sums with them.')

09.10: Keith asks to draw and is shown the pile of paper. He sits down and starts crayoning on the top sheet. Mrs Robertson suggests that he takes his paper and sits somewhere else. She asks him what colour he is using. Michael is cautioned about his 'playground' voice. Mrs Robertson leads Julie and Peter by the hand and 'shows' them the room. They are taken to the painting area. Michael lends Julie his pinafore so that she can paint. Someone finds a piece of jigsaw puzzle on the floor. Emily uses the ironing board in the Wendy House. Mrs Robertson remarks (*to the class in general*): 'Oh dear, someone doesn't push their chairs in'. She is given some green foliage by Mrs Nuthall. Finds a vase and shows Peter where to obtain water. Julie comes into the class area with her painting finished (having spent four minutes on it). Michael describes his drawing to Mrs Robertson.

09.20: Simon goes to paint. Nicola joins forces with Emily and prepares a tea party: 'I'll make the tea, you'll do the dishes... I'll be mummy'. Keith puts his picture on his schoolbag. Mrs Robertson suggests that he puts it in his drawer and shows him where the drawers are located.

09.25: The children are shepherded into the 'home base' ('What's that?'). The stragglers receive special reminders. ('Are you remembering to put the paint brushes back properly?') A joiner arrives to replace the lock in the home base. Mrs Robertson changes plans and takes the children in a crocodile to the (unisex) toilets. The children return to their activities. An occasional shout draws Mrs Robertson's reaction ('.... you see we've no doors at this school').

09.45: The children return to the home base. Mrs Robertson asks them about their homes: 'Simon, how many people are there in your family?'. The children *answer*. Michael receives a reminder about interrupting other people. Stephen is sent to *look for* the milk bottles. One bottle is missing. Mrs Robertson asks the children what they should do. 'Steal it!', 'Share it!' The children line up and walk over to the milk table and then are asked to take their milk to an empty table ('We don't want milky plasticine'). Mrs Robertson shows the class how to open their milk bottles and where to put the caps, straws and empty bottles.

10.10: Peter and Keith discuss their fathers' occupations. Richard *works* on the floor with a tractor and trailer. Paul puts away the beads and, *on request*, Carolyn mops up the milk spots. The children are moving round watching each other. Sophie receives individual attention.

Someone has left out a yellow crayon. Michael has found his way into Mrs Nuthall's area to play with her cars. Other children *work* in the sandpit in the courtyard.

10.45: The children are taken in a group out into the playground where the auxiliaries look after them.

11.20: The children have been in their class areas for 10 minutes *supervised by the auxiliaries* while the staff finish an informal meeting. Mrs Robertson is invited to tea with Emily and Nicola.

11.28: Two children looking at books. Mrs Henderson comes in to find two of her children. Stephen fetches water for some flowers.

11.35: The children sit down in the home base. Mrs Robertson tells them a story about the Three Bears. Some of the children keep interrupting. Michael is told that 'When I'm telling a story, you sit very quietly and listen. When you're telling a story, I'll sit and listen'.

11.50: When the story is finished Mrs Robertson reminds the children to bring their painting overalls *the following day*. Three children paint while their teacher tidies the class area *by putting equipment back in the right place*. Michael and Douglas become noisy; Mrs Robertson takes them out of the class area 'for a walk'. Others complete their drawings and paintings. Someone *in the wet area* asks 'Shall I take the plug out?' Keith asks about 'home time'.

Miss Dean discovers that the toilets are awash. Mrs Robertson takes her entire group into the toilets to relearn the correct procedures.

12.25: The class put on their coats and find their schoolbags. 'Peter go and show Julie how to put the light off.' The children go into the base. Mrs Robertson reminds them to turn off the taps in the toilets. She says, 'Good afternoon' to them. Their reply is ragged ('What is my name?') so she repeats the greeting. The children pick up their bags and move out into the *communal area* where their parents are waiting.

Mrs Robertson takes lunch in the staffroom and then stays at school until 4.00pm. During this time she talks with colleagues, cuts up sheets of paper, tidies her area and generally makes ready for the second day of term.

DAY TWO

DAY TWO

(Wednesday, 27th August)

08.30: Two children are already in the class area, one of them is painting. Nicola also goes to paint. Her mother is still talking to Mrs Robertson. James arrives at the same time as Stephen and Michael. Nicola finishes painting and moves to the plasticine table. Mrs Robertson asks Michael to show James how to *use the pots and paint brushes*. Christina arrives with both parents.

08.40: Nicola abandons the plasticine and wanders through the house. James is shown how to hold a paint brush. He is being watched by his mother and sister who have stayed with him for a few minutes. Stephen is playing with a jigsaw. Keith fetches a tin of crayons. Emily arrives and puts her bag away without being shown. Other girls and boys arrive. All together there are 18 present. Julie has brought a new book. It is her birthday.

08.50: Parents are hovering in the doorway. Christina is asked to 'keep her plasticine on the board'. Julie stands watching the others. Morag has burst into tears. Michael has made a 'Lock Ness Monster' with plasticine. Peter and Simon return to making long chains with the unifix blocks.

08.57: Three children are drawing, four are *working* with the plasticine, two are painting, 2 are building with unifix, 1 is *working* with beads, 1 with a jigsaw and one with a set of wooden dolls. The two remaining children cluster around Mrs Robertson *between activities*.

09.00: Julie sits alone in the home base reading her birthday book. Morag is looking for Mrs Robertson. Nicola tells the boy sitting next to her at the plasticine table that he is 'not allowed to do it on the table'. Douglas announces that he wants to paint. Emily asks if she can fetch her pinny. Laura has left a tin of crayons where she was drawing. Julie puts it with the other tins. Peter and Simon have made a 'blue and white hamburger' with the unifix. A boy from another class looks into the class area but doesn't step onto the carpet.

09.10: Nicola and Rona ask Julie if she would like to play in the house. Mrs Robertson talks with Simon and Peter; suggests they might prefer to use the unifix on the floor. (The scale of its construction can exceed the size of a table.) They decide to continue sitting at their table. Mrs Robertson shows the plasticine children how to leave it when they have finished. In particular, she warns against mixing the colours. The tea party has become 'bathing the baby'. Morag plays with the blocks in a desultory fashion. She leaves them to look for Mrs Robertson who is showing Michael how to wash his hands after painting. Douglas is restrained from running in the class area.

09.20: The children are in the home base where they are told about the difficulty of removing plasticine from the carpet. Douglas interrupts: 'What's that clock for?'.

09.23: Mrs Robertson takes Morag to the toilet. She fears that 'an accident' had occurred. (It hadn't.) The remaining children talk among themselves. When Morag returns, Mrs Robertson asks Julie to show Nicola how to put the light out. The rest of the group are asked about their brothers and sisters. Rona talks about her pets: 'a tortoise, two dogs and a goldfish that died'.

09.36: Mrs Robertson begins to teach the children an action game. ('This is the long snake in the ground, wriggling among the stones he found ...') Michael begins to poke his neighbour and is moved to another place. The group continue with a series of number games (eg, One little elephant sitting in the sun, he found it such tremendous fun, he called another elephant to come .... Two little elephants ....).

09.40: Morag starts to cry. *By invitation* she goes and sits by Mrs Robertson. Everyone sings 'Happy Birthday' for Julie. Nicola shows Stephen the light switch.

09.45: The new children are taken to see the toilets while the others return to their activities. Emily and Nicola reconvene the tea party. Michael, Keith and Douglas join them.

09.53: Douglas and Michael start a mock knife fight at the tea table. Keith watches while the girls carry on preparing the party. Meantime Peter, William and Simon are playing with the plasticine. Douglas has started to pass the toy 'iron' over Michael's head.

10.00: The toilet group return; *Mrs Robertson remonstrates with the tea party and then leaves the area to take someone to the sandpit.* The knife fight has become a sword fight. Mrs Nuthall passes by. Christina asks her 'Where is Mrs Robertson?'.

10.08: Douglas moves out of the 'house' and begins to wave his knife in front of Peter who is still seated at the plasticine table. Mrs Robertson intervenes. Douglas receives a strong warning ('I'm very cross with you ...') and is made to sit on his own. Christina wheels a small pram through the class area. Mrs Robertson reminds the remaining members of the tea party about the noise of their 'playground voices'. She takes Laura for a walk round the painting area.

10.[illegible]: All the children are asked to sit down, each at an empty table. The plasticine boys have forgotten to put their chairs neatly under the plasticine table. Mrs Robertson re-iterates the procedures to be followed when drinking milk. The group of children at each table are sent one by one for their milk. Michael goes out of turn. Christina asks 'Do we get this every day?'. At Mrs Robertson's request, Julie takes Michael to put the lights off.

10.30: The children are sitting in the base. Peter asks about the pile of debris outside (old climbing frames from the gym). Mrs Robertson takes them out for a closer look. The children also watch a cement mixer in operation.

10.36: The group return to the home base where they discuss the dangers of going near the workmen. They give their own reasons: 'You might get cement on your face'; 'A lorry might come along and tip us up'. The girls are sent to put their coats on and find their play pieces. 'Will I need my hat?' (Julie). The boys follow on. Julie tells Douglas that 'You won't need your hat'. When the others go out to the playground Keith is left behind searching in his schoolbag. Suddenly he bursts into tears. He has lost his pencil case. Eventually he realises that it is in his drawer.

11.15: The children come in and take off their coats - 'Go to the toilet if you want to'. Mrs Robertson takes them to the music room where they sing some well-known nursery rhymes and begin to learn two action songs.

11.45: The children return to their activities (Unifix (two children); plasticine (6); drawing (8)).

11.55: All children, with two exceptions, are sitting down. Morag plays with the beads on a side table. Douglas asks to have his shoe-laces tied.

12.00: Christina and Douglas become so noisy at the unifix table that Mrs Robertson decides to separate them. Christina is taken for a walk into Mrs Barber's area. She returns to the unifix but Douglas has already begun to dismantle it.

12.06: Douglas is *working* with a shapes board. Mrs Robertson asks whether anyone wants to go to the toilet. Children put their drawings in their schoolbags or in their drawers.

12.08: The children are putting on their coats and assembling in the home base. Christina has taken the wrong blazer. The class area lights are turned off. No child is left seated *at the tables*. Rona takes her schoolbag into the home base but is asked to put it back with the others. Mrs Henderson is giving directions to a lost child *from another class* at the edge of the class area.

12.12: (Home base.) Mrs Robertson asks the class to put their pinafores on when they arrive for the next day. She starts the story of 'Little Red Riding Hood'. There are no irrelevant interruptions. The story book is put in the library ('Who knows where that is?'). Mrs Robertson reminds the class about putting their hands up.

12.20: Rona tells everyone that she's going to a party. Morag *has recovered and* is smiling. The children are asked to button up their coats and (literally) pull up their socks.

12.24: Mrs Robertson wishes 'lN' 'Good afternoon'. The children reply but are asked to repeat the [illegible] of her name. The children line up with their bags. They are asked for 'a big smile' and reminded that 'tomorrow' they will hear the story of Mr Happy. Peter remembers the location of the Mr Happy poster and points to it.

12.30: The class are allowed out to meet their waiting parents. Emily bursts into tears as her mother has not arrived there. Mrs Robertson brings her back into the class area and helps Emily to gather up paintings which have been left to dry.

12.31: Emily's mother arrives.

DAY THREE

(Thursday, 28th August)

08.30: Stephen is already *working* with the plasticine. Mrs Robertson is moving the tables to give better access to the bricks. David arrives with a group of other children. Nicola bursts into tears. Christina tries to befriend her but is rejected. Douglas starts to paint. David plays with a puzzle on a side table and Mrs Robertson asks him to sit at a table with it or move onto the floor.

08.45: Mrs Robertson and Christina discuss the previous day's events over the telephone. Nicola (now recovered) takes over from Mrs Robertson. Several new parents arrive at once. Keith shows his father where his schoolbag is kept. Simon wanders about carrying a tub of plasticine. Julie arrives clutching her birthday cards. Michael instructs a new boy on the use of crayons; 'Take a whole box, take a whole box'.

08.57: The entire class are present (10 girls and 13 boys). David has returned jigsaw puzzle with the pieces dismantled. A new boy sits in the library corner. The magnetic board is being used by Keith. Laura looks a little distressed.

09.02: The following activities are in use: plasticine (6 children), jigsaw puzzles (1), drawing (4), telephoning (2), beads (1), painting (2), Library (1). The remaining children stand around *observing*. Mrs Robertson walks round the tables and asks the children to 'tidy up and go into the home base'. The experienced class members are asked to help the new ones. Emily tells her neighbour: 'You have to push your chair in'. Ewan points to the home base. 'Is that it?'. Alison is asked to push in the remaining chairs - she goes round them all. A boy and girl from another class come in to the area and ask if they can paint.

09.08: (In the home base.) Mrs Robertson reiterates her policy with regard to jigsaws. She then says a formal 'Good morning' to the class and tells them that 'now we are all here' she will do this every day. She also completes the register - Julie is asked 'Are you here?' and replies 'Yes' in a tone of voice which suggests she thought it was an obvious question. Colin is asked whether his brother is older or younger. No reply. 'Is he bigger or smaller than you?'. *Colin replies.* Mrs Robertson reads the Mr Happy story. There are few interruptions although some children misread her pauses. The 'phone rings persistently and in the middle of the story Mrs Lee (the auxiliary) asks Mrs Robertson whether she should answer it.

09.26: The experienced children are told about choosing their activities: 'You don't need to ask. If you want to paint and there's an easel free ...' Morag starts to cry and is taken onto Mrs Robertson's lap.

09.30: Mrs Robertson takes the new children to the toilets. The remainder draw (3), paint (1), play with plasticine (3), and engage in various activities in the house (7). The last group discuss who should be 'mother'. Christina and Emily take the pram and go 'shopping'. Stephen is telephoning his friends to invite them to a party. James is writing his name in capital letters with a crayon.

09.40: Mrs Robertson returns with the toilet group. She reminds Christina about not running in school. The new pupils join the existing activity. Stephen takes the tray of unifix blocks and sits at an empty table. Douglas, John and Ewan have started a frantic cops and robbers game. Mrs Robertson intervenes to calm them down. She takes them out into the courtyard. Morag sits down with Stephen who immediately dismantles his unifix and leaves it to her. Alison calls out 'teacher'. Mrs Robertson sits down with Colin who is sorting out a box full of small animals, cars and lorries. Morag leaves the unifix and joins him.

10.00: Mrs Robertson takes three girls out to the sand-pit. The boys who were *working* with plasticine move on to the sorting activity (but need to be reminded to straighten their chairs). 2 boys *work* among the wooden blocks. Rona is laying the table. Mrs Robertson sorts out the crayons. The children gradually find a table to sit at. The group who were in the courtyard are gathered up by Mrs Robertson. Douglas and Ewan receive a warning about running.

10.15: (The milk is in cartons rather than the usual bottles.) Mrs Robertson sends each 'table' to collect their cartons. Some of the children recount their experiences with cartons. ('We had them at nursery school'.) They are shown how to open the cartons ('someone's not watching'). The children who are unable are asked to put their hands up. David comes back from painting. Mrs Robertson opens the difficult cartons with a pair of scissors. She discovers that David has been missed out. She makes sure the children drink their milk sitting down ('We don't want any nasty accidents'). A tractor goes by outside the window. Some of the children wave and point. Rona asks if she can take off her overall.

10.28: Mrs Robertson 'Children will you stop and listen. You'll hear that quite a lot ... What you do is <u>stop</u> and <u>listen</u>'. Colin has spilt some milk but fetches a cloth himself. Mrs Robertson uses the opportunity to show the entire group where the cloths are kept. She confuses Ewan and Colin.

10.33: The girls and then the boys are sent to fetch their coats and 'play pieces' (kept in their schoolbags). Morag takes out her schoolbag. James tells her that 'it is not home time now'. The children stand around having their coats buttoned and schoolbags fastened. Keith has lost his bag. The children are asked to sit on the floor in the class area.

10.38: Mrs Robertson tells them to 'remember where to go ...' and asks them to line up at the edge of the class area. Keith needs help to find his schoolbag. The line has become restless.

10.40: The line is led by Mrs Robertson round to the playground.

11.30: The children are brought in late from the playground. (Delayed because of staff meeting.) Mrs Robertson makes sure that they go to the toilet. The class assemble in the home base. Rona and Andrew are sent to fetch the stragglers from the toilet. Mrs Nuthall passes by with a lost child. Colin is asked whether he can find his peg. He pauses ... 'What's a peg?'.

11.37: Julie is asked about her birthday party. 'How many of you are five?... Hands up'. There is a disagreement about the final tally. *Some children are not clear in their signalling.* The five year olds are asked to stand up; then the four year olds. Mrs Robertson takes the register. The class are reminded to sit cross-legged and to avoid the overhanging cupboard. Julie's birthday cards are counted out loud. Nicola has brought an African mother doll. The children discuss why the baby is carried on the doll's back and why the mother had a large hat. Douglas: 'Some people are painting' (he doesn't realise they are in a different class).

11.45: Mrs Robertson reads a selection of counting/action poems. Someone asks 'When is *my* [illegible] coming?'. There is an outburst of noise in the painting area. The children are reminded about not using a playground voice in school.

11.50: The children line up and go out into the courtyard where they sit down in a group. Mrs Robertson asks the children to look: 'This is a looking at fountain - not a going in fountain'. All the children get up and move forward (this was not Mrs Robertson's intention). The children are lined up again. David is slow to join them. Mrs Robertson takes the children back through a different door and, when they have removed their pinafores, through the building to the music area. David goes to play with the unifix and needs to be fetched.

12.00: The children join with another class for their music.

12.29: They return to the class base and collect their coats and schoolbags. 'My mum's outside' *(seen through the window).* Andrew has difficulty with putting on his jacket, Douglas has his schoolbag upside down. *They both receive help.*

12.33: (In the home base.) A mother comes rushing in: 'Am I late?'. She withdraws when she sees that Mrs Robertson is waiting to dismiss the class.

12.35: 'Good morning 1N'.

DAY FIVE

, (Monday, 1st September)

09.10: Class sitting in the class base. Mrs Robertson *takes in the forms she had given out the previous Friday.* Morag is a little tearful and sits on her teacher's lap. Different children are asked about their weekend activities - 'cycling', 'guinea pigs', 'Sunday school', 'bee stings', 'don't know'. David gets up and goes to the toilet. Julie has brought some flowers. Everyone has a chance to talk to the rest of the class.

09.28: Mrs Robertson produces 'Hamish', an 8" figure made from pipe-cleaners and then gives each child a 'book' made of sheets of drawing paper stapled together. The books have different-shaped patterns at the top of each page. The books are put on the tables and the class sit on the floor facing the blackboard. David has not put his book on a table and needs to be shown by another boy. *The class return to their seats.* The children practice making shapes in the air with their hands. Christina points to her name on the book and asks Laura - 'What does that say?'. Douglas and Nicola have started to trace out the shapes. They are asked to replace the crayons and put their hands back on their laps. The children are asked to point to their names. Mrs Robertson scans the class to see if they have understood. David has his book upside down. Three children are moved to different seats (so that the left-handed children sit together). David has already started. The other children are asked to choose a pencil and trace out from 'Hamish's red dot' (a point on the left-hand side of the page). Then they complete the same shape below the first one but without any guide-line to follow. Colin (who is left-handed) works from right to left. Mrs Robertson completes the shapes on the blackboard.

09.48: The children are asked to sit on the floor around the drawer unit *to be shown their trays.* Rona and Christina ask to go to the toilet. Each child has a number on their tray and the same on their 'writing' book. One by one they put their books away. They just fit the trays. At the end Mrs Robertson pauses *until* Douglas registers that she is waiting for him to stop talking.

10.00: 6 children are asked to sit on the floor by the blackboard. The others are asked if they want to paint. Some of them are left to choose (plasticine (4), painting (4), drawing (1), house (3), games (2)). Douglas asks Mrs Robertson what he might do; she gives him a shapes board. The group of six sit by the window and sort out boxes of tokens and small toys into different groups. Keith is a little upset. Michael and Simon play with a jigsaw on the side table. Mrs Robertson 'phones' Ewan to remind him about the noise in the house.

10.12: The sorting group are asked, one by one, to count out the members of the groups they have established (eg, 3 flowers, 4 pears .... etc). Morag has finished painting. Ewan receives another reminder. Paul has made a tower out of unifix blocks. Laura and Rona join in. Mrs Robertson notes down the performance of members of the sorting group. Christina sings to herself while she washes up.

10.19: Mrs Robertson asks the class to 'stop and listen'. She has to repeat it. The class put away the equipment. Alison puts some 'number' apparatus on the 'games' table and is re-directed by Mrs Robertson. Keith is homesick (his father will be away all week).

10.25: Milk - the 'last time' the class will take it together. Douglas, 'What happens if we don't know when to go?'. The children drink their milk. When he is finished Mrs Robertson talks to Michael about the grouping exercise ... *He asks:* 'What is maths?' *Someone else replies* ... 'Work'.

10.33: (The children are sitting by the magnetic board.) The children are asked questions about 'Dick' who is stuck to the board. Mrs Robertson writes 'Dick' on the board and asks the children what it is. She then tries 'dock' and 'dish'.

10.37: The boys go for their jackets; and then the girls. Michael bursts into tears: 'I want mummy'. Mrs Robertson takes the children out into the playground.

11.10: She joins them in the playground and gradually gathers her class together. They file into school, take off their jackets and assemble in the home base.

11.25: Mrs Robertson reminds the children to sit with their legs crossed. She talks to them about various kinds of grain using a bucket containing fully-grown oats (scythes, combine-harvester, threshing, bread-making, flour, miller). The children call out and Rona is asked to put her hand up. Douglas complains that 'he's not got his legs crossed'. Stephen is sent for water to put in the bucket of oats. Another six children are asked to sit at the 'maths' table. The remainder choose their own activities. Keith puts on his pinafore but walks into the library area by mistake. David comes back from the toilet and agitatedly tells Mrs Robertson that someone is locked in. She goes to investigate.

11.40: The maths group begin sorting the counters and toys. Peter asks for something to do. Colin and David sit in the library area. Within a minute they move on to the house and telephone each other.

11.50: 'Stop and listen' (twice). The children are asked to try and work more quietly. In the house Christina tells Emily that she is the 'baby'. 'I'm not' is the reply. David, James and John play with a wooden construction game; a minor war is enacted.

12.00: Mrs Robertson goes round each group or table asking them to go into the home base. Douglas finishes counting the members of his groups. When the children are ready in the base Mrs Robertson takes them *out and* round the class pointing out where the 'class rules' have been ignored: library area, telephone table, games table, disarranged chairs.

12.10: The children are lined up for singing. Julie bursts into tears: 'I want my mummy'. At singing they rehearse 'Ba ba Black Sheep' and 'Jack in the Box'.

12.30: The children come back from singing and convene in the home base. Several (4) decide they want to go to the toilet. Mrs Robertson waits and asks the rest if they are using the toilets properly. She reads (and embroiders) the story of the 'Farmer's Wish'. Douglas asks 'What are wild flowers?'. Someone asks 'When are the mothers coming?'.

12.42: The girls and then the boys are sent for their coats. They spent the last few minutes with a series of singing and counting and acting games.

12.53: Mrs Robertson asks the children to 'make sure to go to bed early'. 'Good afternoon 1N'. Michael asks why the class is called 1N. The class file out at 1 o'clock.

13.02: Five children come back in as their mothers are not outside - two of them crying.

DAY SIX

(Tuesday, 2nd September)

09.10: The children file back from assembly. Colin has brought his action-man cowboy to school. Mrs Robertson sits down *in the home base* and wishes the class a 'Good morning'. Colin is asked about the action-man and a toy car he has brought in. Alison has brought in the sums she did at home. Christina asks 'When do we get homework?'. Later she goes on to say that her mother taught her to write her own name the previous afternoon. Ewan's sister found a hedgehog. The children all talk at once. Peter describes the caterpillar that he found. They offer suggestions for picking up a hedgehog (leather hanky). Michael saw a hedgehog on Mull: 'Who has been to Mull?'. Christina has also brought a doll. Morag tells about finding a lost dog. John tells about the car that broke down. In the afternoon Mary played in her paddling pool. Mrs Robertson deliberately asks children who are usually silent.

09.26: Mrs Robertson asks Peter to put a tin of crayons on each table and then fetches a story book ('The Very Hungry Caterpillar'). The children listen to the story in (amazed) silence.

09.34: The children are asked to fetch their 'writing books' from their trays. Ewan asks if he can use his own pens. While Mrs Robertson goes round checking on the tables, Keith, Douglas and Rona discuss the numbers on the top of their writing books. The janitor arrives to see if Mrs Robertson has anything to take to the main school. Peter asks 'Who's that?'.

09.40: Mrs Robertson asks the class to turn over to page 2 in their writing books. Several children turn the book over completely. The noise level prompts Mrs Robertson to ask the children to quieten down. When the class is quiet she reminds them of the procedure 'What's the first thing to do?'. Douglas reminds Mrs Robertson that she's using chalk, not a crayon. (The left-handed group *have been* dispersed.) When the children have put the pencils back in the tins, they are asked to sit up straight with both feet on the floor. They complete the other lines. Julie starts the line with the crayon in her right hand and finishes it left handed. The class are asked to close their books.

09.50: 6 children put their books away and sit on the floor in front of the blackboard. They are then sent to the base. Douglas asks 'Why is it called a base?'. Alison and Morag talk animatedly to Mrs Robertson. Ewan asks if he can go to the sand. He is told that he can choose for himself. David goes into the 'library'. The *number* group are shown what to do. Mrs Robertson asks Michael if he'd like to have his milk. Keith asks 'When is hometime?'. (Library (3), Maths (6), games (1), painting (1), milk (3), sand (9).) Emily tells the number group that 'We've had our milk'.

10.06: Keith tries to join the number group but is told by Mrs Robertson that 'The table is booked'. *(It wasn't his turn.)* He tries to join Peter at the 'straws' construction game. He hovers around the number group while Mrs Robertson asks questions of each child (eg, 'If I took away three flowers how many would be left?').

10.15: Lucy and Nicola come back from the sand. Lucy is *included* in the final number group.

(At this point the observation stops - the researcher has to attend a conference in Stirling.)

DAY NINE

(Friday, 5th September)

09.25: The class leave the home base and fetch their writing books from the trays. They find a sheet (the tables have been re-arranged). The children help each other to find their places in the book (page 7). Mrs Robertson calls the class to order. She draws Hamish on the board. The children wave their fingers in the air and trace over the pattern. They repeat the movement with a crayon - starting at the red dot. When Mrs Robertson asks if they have heard what she said Nicola chants 'Yes, Mrs Robertson'. While the children complete shapes Mrs Robertson goes round each group making sure the children are sitting properly. Two boys come round with the register.

09.36: The class are asked to turn to page 8 (the last page). Douglas walks out and tells Mrs Robertson that he has only got 2 dots. Emily complains that she hasn't got page 8 *(she did)*. David is asked whether he has the right page.

09.40: The class are shown what to do and rehearse the movements in the air. They complete the task and without any prompting, put away their books. Rona asks if she can have her milk (it hasn't been put out). Ewan asks to play with the Russian dolls that fit inside each other. A group of six sit by the board. Only one child is left sitting at a table. The group which is then divided into two. Christina, Douglas and Keith sort counters; Morag, Andrew and Colin count out unifix cubes.

09.50: Ewan has become noisy in the house so Mrs Robertson asks him to find something to do on his own. David joins the unifix group. Keith goes to Mrs Robertson but is told to stop 'being silly'. *(She is being cruel to be kind.)* A few minutes later he bursts into tears ('I want my mummy'). Mrs Robertson comforts him and explains that his mother will be'coming at one o'clock'. Keith goes to the toilet. Christina is asked about the numbers in the groups she has established. The other table are shown how to count the unifix blocks. As the children complete their tasks they are allowed to move on to other activities.

10.03: Michael asks to have his milk. Mrs Robertson replied by asking him another question: 'Is there a place (at the milk table)?'. Julie and Keith are questioned about their groups of counters.

10.10: Keith finished and is told he can go and choose. Christina goes to the sandpit. Mrs Robertson is writing in her notebook. John comes running in from the toilet and is sent back to try again. A group of six boys are working with the wooden blocks. Alison and Julie are *working* at sorting out the counters (ie, they have chosen to do this).

10.20: The children gather in the home base. Andrew is asked to put the light out in the class area. 'Which area?'. Michael enquires about the different areas. Mary has left the unifix blocks on the table instead of putting them on the appropriate work bench. Mary and Michael ask to go to the toilet. Mrs Robertson asks 'How do we make a one' ... 'Down' (children also wave in the air). She also asks the children who have not brought a matchbox to stand up.

10.30: The children are shown a set of cards featuring the number two. The children call out in response to Mrs Robertson's questions. (Eg, 'How many boots are there? How many eyes has the cat?'). Some children ask other questions (eg, 'How do they make the toots?'). Colin is asked to repeat the word two (he has said 'twoooo'). Mrs Robertson demonstrates what the children need to do in their 'big' number books. She asks the question 'How do we do a one' on 6 separate occasions. She distributes the books by holding them up to see if the children recognise their names.

10.40: The class sit at their tables but because of the noise they create Mrs Robertson asks them to 'stop'. She reminds them as to the appropriate behaviour and goes round the class helping children and making sure they are sitting properly and holding their crayons suitably. Christina puts up her hand to attract Mrs Robertson. The class are asked to leave their books open and to remember where they are sitting. The girls and then the boys put on their blazers. Ewan is asked to put his chair straight. David goes round pushing in chairs.

11.17: The children file in from playtime and take off their coats and find their places. Mrs Lee (the auxiliary) puts on the light. When the children finish their number work they put away their books and choose their activities. Mrs Henderson comes into the area while Mrs Robertson is talking to Peter. She joins the conversation and asks Peter his name.

11.25: Sum books (7), house (4), crayoning (2), sewing (1), games (1), wood blocks (3), *observing* (4).

11.30: Mrs Robertson tells Douglas that she is going to tell them a story in the home base. He goes round the class broadcasting this to the other children. In the base the children ask Mrs Robertson what they are going to do while waiting for the last four of the class. Christina has been painting without her pinafore.

11.36: Mrs Robertson begins to talk to the children about planting seeds in fields: 'Why are the seeds spread all over the field?'. This leads her on to talk about the fruits and seeds found in trees and plants (eg, dandelion).... 'parachutes and aeroplanes'. Before moving on to talk about "fluff" (the cat owned by Dick and Dora), Mrs Robertson asks the children to stand up and sit down quickly in succession. She then sits by the magnetic board and 'plays a game' with the children by matching the name cards against pictures of Dick, Dora, Nip and Fluff. The children call out the answers and correct her when she goes wrong. Andrew asks if they will be 'getting Dick and Dora school books?'.

11.50: Mrs Robertson takes the class out into the playground and gets the children to run round and stop when she claps her hands. The children then line up, file into the class area and sit in front of the blackboard. Lucy is asked to fetch her colouring book and Mrs Robertson indicates that the children can colour in one picture of Fluff and one of Nip. When the class fetch their books *from the trays (for the first time)*, there is a period of confusion since not all the children *find* the correct book. Further, there is a problem about sharing the limited number of black and brown crayons. The children take their individual problems to Mrs Robertson who stands in the middle of the area.

12.15: As some children have finished Mrs Robertson asks them to take their schoolbags to their seats. Colin complains that James is sitting in his seat. Mrs Robertson explains to him that he doesn't have his own seat. He finds another one but wanders out of it and Morag takes it. Colin returns and says 'I was there first'. With Mrs Robertson's help, Morag is found a new seat.

12.24: One by one the 'tables' put away their crayons and fetch their writing books to take home. When they have lined up to go to singing, John reminds Simon to leave his schoolbag behind.

12.35: All the primary one children gather in the audio-visual room and sing nursery rhymes.

12.50: The class return and put on their coats. They assemble in the home base. Douglas says that the class area light is 'not put off'. Mrs Robertson asks the children to remember to bring a matchbox, to collect 'parachutes' and to have a good weekend.

12.59: "Good afternoon 1N". David and his sister (who is in P2) pack up his bag while talking to Mrs Robertson. Mrs Windsor (a parent) asks Mrs Robertson whether Michael is 'all right'. Mary's grandmother comes in and asks where Mary sits. Mrs Robertson shows her around the class area, the home base and the painting area.

DAY TEN

(Monday, 8th September)

09.25: The class are sitting in the base. They are discussing the ladybird which Julie has brought into school. Mrs Robertson asks individual children about their weekend exploits. Morag talks about her hamster, Keith presents a drawing of two flowers that he has made. Andrew has already begun preparing for Christmas. Everyone is given the opportunity to talk.

09.37: While Mrs Robertson gives out a set of new (home-made) books, Julie puts a tin of crayons on each table. The work books are held up to see if the children recognise their names. The front page of the books has drawings of Dick, Dora, Nip and Fluff with their names on the right hand side of the page but not opposite the drawing. The children are shown how to draw a line between the picture and the correct label.

09.45: Mrs Robertson calls out the names of the children who are to join her when they have finished their 'matching' books. The remainder (approx 10) are left to 'choose'. The children quickly sit down. Two PE teachers pass by looking for a P2 class. Some children can't find the right colour in their tins to colour the shapes. Mrs Robertson asks the children to put their 'pencils' back in the tins and wait, until there is perfect silence: 'I'm waiting ....'. She impresses upon the class that they are to work quietly. She circulates round the class while the children complete their work. The register boy arrives. Some of the children work independently, others discuss their work.

10.00: Ewan finishes, puts his book in the base to be marked, and goes to find the telephone (which has been deliberately put away by Mrs Robertson). Morag asks 'What do we choose?'. At Colin's suggestion they both go to the milk table and drink their milk. Some children have forgotten whether they are to choose or to wait for Mrs Robertson. Laura is wandering about; Mrs Robertson takes her to paint but finds she doesn't want to paint. Mrs Robertson looks for an auxiliary as some of the paints are missing.

10.08: The group who are sitting by the blackboard are given pieces of prepared paper divided into four quarters. Mrs Robertson holds up a piece of card with a circle drawn on it and asks the group (by now sitting at a table) to draw in the first 'box'. Some of them put it in the wrong box. When asked to draw a shape in box 3 Morag dissolves in tears - she has already drawn something in that box. Mrs Robertson goes round the class writing the children's names on the pieces of paper. Morag has still not completed her paper. Mrs Robertson gives out another sheet of paper numbered 5-8. Morag is not given a piece but is sent to take her milk. The remaining children complete their drawings. Mrs Robertson gathers the group together and discusses with them what they might do next.

10.22: While the rest of the class choose (drawing (3), plasticine (2), wooden blocks (6), milk (4), games (2), painting (1)), Mrs Robertson repeats the drawing exercise with Colin, John and Mary. Michael tries to join in but is told by Mrs Robertson that she is 'extremely busy'. *(It is a testing activity.)* Mrs Lee (the auxiliary) arrives and is told of the shortage of black paint.

10.28: Ewan asks if he can play with one of the construction games. The shapes group are disbanded. Mrs Robertson tells Alison that the 'all together times' is about to begin. This idea gradually permeates through the class. David announces to the wood block group that 'it's tidy up time'. While the rest of the class are in the base, Peter and Douglas continue jointly with a jigsaw puzzle.

10.35: Stephen is sent to fetch Douglas but comes back saying 'He didn't come'. Mrs Robertson catches Douglas's eye. He joins the group. Individual children are asked to perform a sequence of tasks (eg, 'take the matchbox and the felt-tip pen and give them to William and then take the purple pencil and put it on the chair').

10.41: Mrs Robertson asks the children to collect their number books when they come in from break and put them on their tables. While the girls put on their coats the boys are tested on their ability to recognise word shapes (eg, Nip, Fluff).

11.20: The children are sitting in front of the board with their books on their tables. After revising the way to write 1, Mrs Robertson draws a swan on the board to symbolize the figure 2. Christina arrives late. The class rehearse the shape by writing the figure in the air. Michael says that he has a hen with its leg broken. The class are sent back to their seats and asked to open their books at page 3. John claims that William is sitting in his seat. Someone points out that they have already completed page 3. Colin remains confused (probably because figure 2 is on page 4). Mrs Robertson goes round putting the books straight - two children are looking at the figures which are visible on the back of the pages (ie, the *duplicating spirit* has soaked through).

11.30: The children gradually trace out the shapes with a crayon. Ewan, Alison and John hold up their books for Mrs Robertson's inspection. The class are now asked to write the number free-hand. Julie puts up her hand and says 'I can't do it'. She is asked to try. Christina writes two 2s (instead of one). Morag is crying; she *is unable to complete the task.* Ewan asks if he can colour in the animals (2 ducks, 2 fish, 2 crabs). The class are reminded that they 'shouldn't be waggling (their) tongues while they are writing with (their) pencils'.

11.45: The children put the number books in their trays and gather round the board. Mrs Robertson sorts out those who have not drawn shapes. She asks the others to paint Dick, Dora, Nip or Fluff, (if they choose to paint). Colin comes back saying that there's no more room in the painting area. The shapes group emerge from the base. Morag takes her plastic construction toy and moves onto the floor.

11.55: Simon draws his shape in the wrong box. Ewan points this out to him. Colin has found somewhere to paint. The shapes activity continues while the others paint or play with the bricks. Lucy tells Mrs Robertson that she is going to paint a picture of Fluff. Nicola and Morag ask Rona and Mary if they can play with them in the house. They are refused. Mrs Robertson cautions the construction group to be careful with the large pieces of wood. Only two children *remain* sitting at a table. Mrs Robertson has gone to talk to Mrs Mitchell. She returns and goes round the class to see if everyone has had their milk and to ask the children to tidy up and gather in the base.

12.15: The children are given drawing books and on the first three pages draw an apple, a tree and a wave shape using the scaled down examples provided by Mrs Robertson.

12.25: The children gather in the home base with their school bags. Mrs Robertson gives out letter for parents and a home-made homework book (tracing and colouring Dick, Dora, Nip and Fluff). Mrs Henderson's class arrive and wait while the letters etc are put safely in the schoolbags.

12.38: Mrs Robertson sends her class to put their schoolbags on the tables while Mrs Henderson's class are seated in the base. Mrs Robertson's class fill up the home base. The entire group are told the tale of Brown Bear (a 'tel ing' story rather than a 'looking' story). There are only 2 interruptions (once when there was a long pause and once when the story contained a rhetorical question). Mrs Robertson reads a short poem and then wishes Mrs Henderson's class a 'Good afternoon'.

12.52: Mrs Robertson's class stand by their schoolbags while the others file out towards their own area. The flowers are knocked over. Stephen is not sure which is his schoolbag.

13.00: The class file out. Julie remembers to take her Ladybird home. Michael comes back saying 'They're not there'. Peter's parent has not arrived; he is sent to fetch fresh water for the flowers.

DAY TWELVE

(Wednesday, 10th September)

08.40: Eight children are in the class area including two 'strangers' *from another class*. Mrs Robertson tells me that 21 parents have already agreed to help with the research. I talk briefly with Mrs Macallister and Mr Bergen.

08.50: The children line up at the edge of the carpet and, five minutes later, file out to assembly. (Interview with Mrs Ribble.)

09.20: While sitting in the home base the children are asked about their 'news'. Three children remain in the class area and complete a jigsaw. Michael and Mary have brought a china pig and a puppet to show the class.

09.35: The class sit around the board. (Peter wants to know why there is a lock on the heater.) There are two words written on the board: "Here is". The children complete the sentences with Dick/Dora/Nip/Fluff; and a new word 'mummy'. Mrs Robertson draws a series of balloons on the board. She asks individual children to read the words she writes in the balloon. If they can, they are asked to 'blow the balloons away' (ie, they are rubbed out). The questions are individualised. Some children ask to try but are asked to wait their turn.

09.45: Mrs Robertson introduces the class to the word 'assignment'. She takes a pile of 'everyday' books and with Mary's book shows the class what they need to do. 'You've all got different things to do'. These tasks are already written into the books by Mrs Robertson. Rona asks to go to the toilet. The class are told that when they've finished their everyday books they are to 'put them on the pile and then choose'.

09.58: While the rest of the class work at the tables, Keith, Julie and Michael have a session with Mrs Robertson and their 'matchbox' words. Morag comes out as she is unable to find the place in her everyday book. Emily is reminded that if she does not know what to do she is not to call out but, instead, should sit down and wait beside Mrs Robertson. Michael has difficulty in distinguishing 'Dick from Dora' (his new word). Michael is sent to call up Simon but the message doesn't arrive. Children start going out to Mrs Robertson; the register boy arrives.

10.03: Colin is chastised for interrupting Mrs Robertson. Eight children are still working in everyday books. David has started writing on a random page in his book *but is redirected.* Morag takes her book for Mrs Robertson's inspection but is told 'You don't really need to bring it to me ... put it on the pile'. Christina and Michael are hovering around outside Mrs Lee's room - waiting for paint. Mrs Robertson gets up and goes to find out their difficulty. She takes Lucy and Stephen to the sand pit. (Stephen has asked her since the door is locked.) Back at the blackboard she hears Andrew and Rona read. Simon asks to go to the toilet. Stephen complains that Keith has interrupted his work with the bricks.

10.20: Builders (6), milk (1), painting (3), puzzles (2), blocks (4), drawing (3), reading (1), others (2). Mrs Robertson asks them to tidy up and come and sit near me. Laura is asked to fetch the spare children who are *working* in the sand. She is reluctant to go but Stephen goes with her.

10.27: Mrs Robertson reminds the class about keeping their schoolbags fastened and put in the correct place. She also holds up a half-full milk bottle that hadn't been put away. Finally she asks the class not to interrupt her when she is busy with an individual child or group. David (everyday book) and Colin (jigsaw) are still sitting at the tables. Before they get ready for break, Mrs Robertson asks those children who have not been seen to have their matchboxes ready immediately after break.

10.40: Rona asks 'Can we go straight out?'. Other children are delayed as there is a 'mix-up of blazers'. David receives some individual tuition with his reading. His sister (P2) comes into the area and asks 'What words have you got?'.

(BREAK)

11.20: Mrs Robertson is marking the everyday books. The rest of the class are 'choosing'. In turn, the children stand by their teacher while she marks their books. Julie asks Peter if he can 'do 2's'. He says 'Yes', but seems reluctant to show her. James, also at the same table, draws a 2 on his drawing of a house. Julie then shows him how to do a J. ('I know how to do it because it's in my name'.) Simon and David stand back to admire the tower they have made of bricks. Michael helps Mrs Robertson by putting away the number books (to do this he needs to match the numbers on the front of the books with the numbers on the trays).

11.36: Mrs Robertson goes to investigate the noise in the painting area. Michael asks Simon to go and see Mrs Robertson and then join the 'blocks' group. Julie announces that she is on to her 'third drawing'.

11.45: Peter and John are bouncing the pram up and down such that Mrs Robertson intervenes by asking them 'Are you trying to break the pram?'. Morag trys to put her drawing in the schoolbag. She finds that it is too big. Mrs Robertson whispers to the bricks group that they should 'pack up and sit in front of the blackboard'. This news spreads rapidly through the class. Ewan is still trying to finish the jigsaw he was commissioned to do 'quietly on his own'.

11.53: Although Rona and Ewan have not joined the sitting group Mrs Robertson holds up a colouring book and revises the word 'mummy'. The children fetch their colouring books from the trays and sit down to work.

12.00: Ewan continues with the jigsaw aided by Mrs Robertson. When finished he starts to colour 'mummy'. Mrs Lee comes into the area to see about some spirit duplicating that she has done. Ewan holds up his book and calls to Mrs Robertson "Look at my mummy". Mrs Robertson does not reply verbally but puts up her hand. He recognises the sign and does likewise. Christina hurriedly puts her book away leaving it sticking out of her drawer. Morag tells Stephen that he has not put his chair in.

12.11: Mrs Robertson scans the painting area to see if anyone is missing. Although 4 children are in the class area the home base group perform some calisthenic exercises. Mrs Robertson then holds up a long sheet of paper with several pictures on it. 3 children are asked to make up a story about the pictures (a cat and mouse story). John declines the request to make up a story. When Emily tells her story, she is asked to speak a little louder.

12.20: The class move to sit in front of the 'number table'. With the aid of the pictures (prepared by the children) Mrs Robertson rehearses the numbers 1 and 2. The children draw the shapes in the air and talk out the shape at the same time. (Eg, 'Round, down and along (2)'.)

12.30: They line up for singing.

DAY FOURTEEN

(Friday, 12th September)

08.35: Two children (David and Michael) already present. It is raining hard. Interview with Mrs Peterson. Mr Smith came in to ask Mrs Robertson about Laura's ambidextrous behaviour. The children take off their coats and wellington boots. Some begin to line up without being asked. Parents come into the lobby. Mrs Robertson sees some children with their words.

08.57: They file out to assembly. Julie and Simon stay behind. While the children are at assembly, Mrs Robertson pegs the wellies together. (Discussion with Mrs Lee about the new building.)

09.26: The class return from assembly and gather in the home base. Mrs Robertson starts to tell a bible story. (The Good Samaritan.)* Mrs Anderson (another auxiliary) brings some letters for the parents. Keith says 'This is the 2s'. Mrs Robertson slowly brings the conversation back to the story. There are further interruptions. When the story reaches the part where the lawyer passes by, Nicola speaks up 'My father's a lawyer'. When Mrs Robertson stops,Nicola then says (correctly) 'He's a builder'. The rest of the story is completed in silence. The children discuss what the samaritan was and where he came from. Ewan says that he was born in Hong Kong. Alison's mother was born in South America.

09.35: Mrs Robertson explains there are 2 parts to their assignment; the everyday book and the matching book. Christina reminds everyone that when they've done their assignments they can go and choose. Finally, Mrs Robertson gives out the books and asks the children to put them on a table and then sit in front of the blackboard.

09.41: Thirteen balloon words are on the board (including some double words). The children are asked to close their eyes while Mrs Robertson writes the words on the board (Michael: 'No cheating'). Christina calls out in a loud voice (John 'Leave it at home'). The class then move on to their first sentence: 'I see Fluff is here'. The children's names are substituted. (Eg. 'See Dick', 'See Dora', 'I see Dora'.)

09.55: The children disperse to the tables while the numbers group sit round Mrs Robertson. As they finish their everyday books children bring them out to be marked. Mrs Robertson redirects them to the marking pile in the base. Other children move on to choosing. Ewan and Michael stick materials together. Rona and Emily move onto Ewan's table and do their matching exercise. Peter fetches his colouring book and starts to colour one of the drawings. Lucy does the same. Eventually Simon points out that they are using the wrong book (they should be colouring the matching book).

10.18: Colin asks John which page in his matching book he should be doing. Alison is sitting in the library area.

10.20: Only five children sitting at the tables. Colin asks Simon if he has an English accent. 6 children are sitting round Mrs Robertson while she hears Peter read his words. Michael comes in from the wet area and tells Mrs Robertson that he has made a movie camera.

10.25: Mrs Lee arrives with the milk and immediately attracts 5 customers. Ewan and Stephen are sharing a pot of tea in the house. They take one to Mrs Robertson. Colin reads in the library. William shows Stephen the swimming bath that he's drawn.

10.35: Only 3 children sitting at the tables. Mrs Robertson is looking for somewhere to put a large model stuck together by one of the class.

10.40: Mrs Robertson sits on the bench in the library and 6 children gather round but as soon as their teacher leaves they put the books back and walk back into the main class area. Ewan asks 'Is it tidy-up time?'.

10.45: The children gather round the board and Mrs Robertson shows them the pictures of Jack to colour. She then explains the routine for the 'wet' playtime. William 'I've not got a break - I don't want a break at school'.

(Discussion with Miss Downie until 12.00.)

12.05: The class return from singing and gather in the base. Within 2 minutes they are sitting at their tables working at a fresh number book. Michael starts on the wrong page. Rona and William's work is shown to the rest of the class. Some children colour the drawings but do not write in the numbers. Simon has put the wrong numbers - he is given some individual instruction. Mrs Robertson circulates inspecting the children's work.

12.22: Mrs Robertson asks if everyone has had their milk. Alison asks to take hers. Mrs Robertson goes out of the class area. Laura hovers at the edge of the area and waits for her to return. 3 children are sitting with their hands in the air. Stephen is 'waiting for the teacher to come'.

12.28: Mrs Robertson asks those who have finished to tidy up and go quietly into the home base. She reminds some of them to put their chairs straight. In the class base the children are given letters to take home. She then reads them a story.

(Waiting for parent interview.)

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